





BOTANICAL REGISTER:

ILLUSTRATED BY

Coloured figures

EXOTIC PLANTS,

AS INTRODUCED TO

BRITISH GARDENS,

WITH

HISTORY AND MODES OF TREATMENT.

THE DESIGN OF

Stephen Comins,

Engraver and Colourist.

VOL. II.

LONDON,

PRINTED BY J. JOHNSON, ST. PAUL'S CHURCH-YARD.

1812.

BOTTICAL REGISTER

OF THE

STATE OF ALABAMA

FOR THE YEAR 1881

AND

1882

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THE
BOTANICAL REGISTER:

CONSISTING OF



Coloured Figures

OF

EXOTIC PLANTS,

CULTIVATED IN

BRITISH GARDENS;

WITH THEIR

HISTORY AND MODE OF TREATMENT.

THE DESIGNS BY

Sydenham Edwards,

FELLOW OF THE LINNEAN SOCIETY.

VOL. II.

—viret semper—nec fronde caduca
Carpitur.

LONDON:
PRINTED FOR RIDGWAYS, PICCADILLY.
1816.

BOTANICAL REGISTER:

CONTAINING

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OF

EXOTIC PLANTS

CONTAINED IN

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WITH THEIR

HISTORY AND MODE OF TREATMENT.

THE DESIGN BY

Stephen H. Colman,

ARTIST OF THE ROYAL SOCIETY.

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APPENDIX TO THE CATALOGUE OF BOOKS

IN THE FIRST VOLUME;

OR,

*List of Books quoted in the Second Volume in addition to those
quoted in the First.*

AMBR. phyt. Hyacinthi Ambrosini Phytologiae partis primæ tomus primus. Bonon. 1666. fol.

Asiat. research. Asiatic Researches, or Transactions of the Society instituted in Bengal for inquiring into the History and Antiquities, the Arts, Sciences, and Literature of Asia. (Printed verbatim from the Calcutta edition.) London. 1798, seqq. 8vo.

Balbis ic. & descr. fasc. Not received in this country.

Bradl. succ. Rich. Bradley historia plantarum succulentarum. Decades 5. Londini, 1716—1727. 4to.

Cam. epit. De plantis epitome Petr. Andr. Matthioli aucta à Joach. Camerario. Francofurti ad Mœn. 1586. 4to.

Clayt. MSS. Numeri et notæ Plantarum, quibus D. Clayton specimina transmisit, undè confecta est Flora Virginica à Gronovio. Musæo Banksiano asservata.

Comm. rar. Casp. Commelini plantæ rariores exoticæ horti medici Amstelodamensis. Lugd. Batav. 1706. 4to.

Decand. Astrag. Augustini-Pyrami Decandolle, Astragalogia, nempè Astragali, Biserrulæ, et Oxytropidis, nec non Phacæ, Coluteæ, et Lessertiæ Historia iconibus illustrata. Parisiis, 1802. fol.

Dodart. mem. Mémoires pour servir à l'histoire des plantes, par M. Dodart. Paris, 1676. fol.

Duham. arb. Traité des arbres et arbustes, qui se cultivent en France en pleine terre, par M. Du Hamel du Monceau. Tomes 2. Paris, 1755. 4to.

Dunal syn. Solanorum Generumque affinium Synopsis, seu Solanorum Historiæ editionis secundæ summarium; autore Mich. Félix Dunal. Monspeli, 1816. 8vo.

- Flor. græc.* Flora Græca, sive plantarum rariorum historia, quas in provinciis aut insulis Græciæ legit, investigavit, et depingi curavit Joh. Sibthorp; characteres omnium, descriptiones et synonyma elaboravit Jac. Edw. Smith. Vol. 1. seqq. Londini, 1806. fol.
- Flor. zeyl.* Caroli Linnæi Flora zeylanica. Holmiæ, 1747. 8vo.
- Fraser's cat.* A catalogue of new and interesting plants collected in Upper Louisiana, and principally on the River Missourie, North America, for sale at Messrs. Fraser's Nursery. 1813.
- Hasselq. it.* Fredric Hasselquist. Iter palestinum, eller Resa til Heliga Lander, förättad ifrå år 1749 til 1752, utgifven af C. Linnæus. Stockholm, 1757. 8vo.
- Haworth succ.* Synopsis plantarum succulentarum, cum descriptionibus, synonymis, locis. Autore A. H. Haworth. Londini, 1812. 8vo.
- Herman zeyl.* Paulus Hermannus Musæum zeylanicum s. catalogus plantarum in Zeylona sponte nascentium. Lugdb. Batav. 1726. 8vo.
- Hort. farnes.* Tobias Aldinus. Exactissima descriptio rariorum quarundam plantarum quæ cultivantur Romæ in Horto Farnesiano. Pagg. 101; cum figg. ære incisis. Romæ, 1625. fol.
- Houst. MSS.* Willielmus Houstoun, Scotus; cui nova debemus plantarum americanarum genera.
- Jacq. oxal.* Oxalis. Monographia, Iconibus illustrata. Autore Nic. Josepho Jacquin. Viennæ, 1794. 4to.
- Knorr. thes.* Thesaurus rei herbariæ hortensisque universalis; apud Ge. Wolfg. Knorri hæredes. Voll. 2. Nürnberg, 1770. fol.
- Labillard. syr.* Icones plantarum Syriæ rariorum, auctore Jac. Jul. Labillardière. Decas 1—5. Lutetiæ Paris, 1791—1812. 4to.
- Lob. hist.* Plantarum seu stirpium historia Matthiæ de Lobel. Antverpiæ, 1576. fol.
- Lob. ic.* Ejusdem plantarum seu stirpium icones. Tomi 1. 2. Antverpiæ, 1581—1591. 4to. obl.
- Marcg. bras.* (Guil. Pisonis et Ge. Marcgravii) Historia naturalis Brasilæ. Lugd. Bat. et Amstelod. 1648. fol.
- Marsch. Bieb. taur. cauc.* Flora Taurico-Caucasica exhibens stirpes phenogamas in Chersoneso Taurica et Regionibus caucasicis sponte crescentes. Auctore L. B. Friderico Marschall à Bieberstein. Voll. 2. Charkoviâ, 1808. 8vo.
- Mart. cent.* Joannis Martyn, Historia plantarum rariorum. Cent. 1. Londini, 1728. fol.

- Meerb. ic. 1.* Afbeeldingen van Zeldsame gewassen, door Nicolas Meerburgh, hortulanus van den Kruidtuin van 'Slands universiteyt te Leyden, 1775. fol.
- Meerb. ic. 2.* Plantarum selectarum icones pictæ, editæ à Nic. Meerburg. Lugd. Bat. 1798. fol.
- Mentz. pug.* Mentzel. Christ. Lexicon plantarum polyglotton universale. Berol. 1715. fol.
- Mœnch meth.* Conr. Mœnch, Methodus plantarum horti botanici et agri Marburgensis a staminum situ. Marburg, 1794. 8vo.
- Nouv. Bulletin.* Bulletin des sciences par la Société Philomatique. An 5, 1815, seqq. 4to.
- Osbeck. res.* Pehr Osbecks Dagboköfver en Ostindisk resa. Stockholm, 1757. 8vo.
- Philosoph. trans.* Philosophical transactions of the Royal Society of London. London, 1665, seqq. 4to.
- Plant. grass.* Histoire des plantes grasses, par A. P. De Candolle, avec leurs figures en couleurs dessinés par P. J. Redouté. Paris, an 7, seqq. 4to.
- Pluk. mant.* L. Plukenett Mantissa Almagesti botanici. Londini, 1700. 4to.
- Quer flor. españ.* Continuacion de la Flora Española, que escribia Don Jos. Quer, ordenada, suplida y publicada por Don Cas. Gom. de Ortega. Tomos, 6. Madrid, 1784. 4to.
- Raii dendr.* Dendrologiam hanc componit liber Joannes Raii vigesimus quartus in Supplementi ejus Historiæ Plantarum Tomo tertio, qui est Supplementum. Londini, 1704. fol.
- Reliq. houst.* Reliquiæ Houstounianæ, seu Plantarum in America Meridionali à Gul. Houstoun collectarum icones, manu propriâ ære incisæ; cum descriptionibus è schedis ejusdem, in Bibliotheca Jos. Banks asservatis. Londini, 1781. 4to.
- Regn. bot.* La Botanique mise à la portée de tout le monde, ou collection des plantes d'usage dans la Médecine, dans les Alimens et dans les Arts, par les Sr. et D^e. Regnault. Paris, 1774. fol.
- Rob. ic.* 319 plates engraved by Nic. Robert, A. Bosse, et Lud. de Chastillon. fol.
- Smith prod. fl. græc.* Jac. Edv. Smith, Floræ Græcæ prodromus. Vol. 1. Londini, 1791, 1792. 8vo.

Tabern. ic. Eicones plantarum. (eædem ac in Tabernamontani Kränterbuch.) Francofurti, 1590. 4to. obl.

Thunb. diss. de Oxal. Carolus Petrus Thunberg Dissertatio de Oxalide. Upsaliæ, 1781. 4to.

Volckam. norib. Joh. Go. Volckameri Flora Noribergensis. Noribergæ, 1700. 4to.

Wern. trans. Memoirs of the Wernerian Natural History Society. Vol. 1. For the years 1808,—9,—10. Edinburgh, 1811. 8vo.

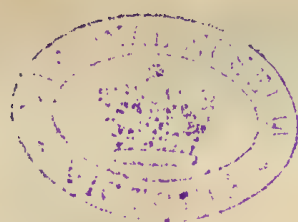
Zorn ic. Johann Zorn. Icones plantarum medicinalium. Centt. 5. tabb. æneæ color. 500. Nürnberg, 1779—1784. 8vo.

ENGLISH ALPHABETICAL INDEX TO VOLUME II.

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JASMINUM grandiflorum.
Spanish or catalonian Jasmine.

DIANDRIA MONOGYNIA.

JASMINUM. *Suprà vol. 1. fol. 1.*

Div. foliis compositis.

- J. grandiflorum*, foliis pinnatis: foliolis obtusiusculis, gemmis horizontalibus. *Hort. Kew.* 1. 10.
J. grandiflorum. *Linn. sp. pl.* 1. 9. *Mill. dict. ed.* 8. n. 4. *Meerb. ic. t.* 1. *Desfont. fl. atl.* 1. 6. *Brotero fl. lusit.* 1. 12. *Quer fl. espan.* 5. 260. *Ruiz y Pavon fl. peruv.* 1. 6. *Willd. sp. pl.* 1. 41. *Vahl enum.* 1. 34. *Hort. Kew. ed.* 2. 1. 18.
Jasminum officinale. β . *Gouan hort.* 5.
J. hispanicum flore majore externè rubente. *Cat. pl. hort. lond. t.* 7. *Merian surinam. t.* 46. *Knorr thes.* 1. t. I. 1.
J. candidiflorum majus. *Ger. emac.* 892. f. 2. *Tabern. ic.* 885.
J. catalanicum. *Park. parad.* 406.
Gelseminum catalanicum. *Cam. epit.* 37.
Chamægelseminum grandiflorum peramoenum. *Lob. hist.* 443.
Pitsjegam-Mulla. *Rheede mal.* 6. 91. t. 52.

Arbuscula erecta, glabra, 3-4-pedalis, non scandens, ramosa; rami divisi, graciles, virentes, foliosi, per duo latera exarati sulco. Folia decussato-distantia, patentissima, petiolata, trijuga cum impari, lævia; foliolis ovatis, laterum æqualibus sessilibus obtusis, finis duplo majori, longè acuminato. Pedunculi terminales lateralesque, axillares, trichotomo-triflori v. modò ultrà; pedicelli extimi suffulti bractea modò foliaceo-amplà modò minutà. Cal. viridis, dentibus setaceis. Cor. sesquiuncialis, alba, externè purpureo-suffusa; tubus erectus, angustè cylindricus, $\frac{3}{4}$ partes uncie longus; laciniæ 5, explanatæ, ellipticæ, obtusulæ.

A species the nearest of any to the common Jasmine (*JASMINUM officinale*;) but differs from that in having an upright subarborescent stem, with divergent woody branches which do not require to be supported, and never acquire any thing near the length these do in the other, the entire plant seldom exceeding four feet; in having horizontal, not upright buds, leaves of a brighter green, obtuse closer lateral leaflets, the one at the end much larger acuminate and most times decursively confluent with the two next; in having a larger, more substantial, and more exquisitely fragrant bloom, generally suffused with crimson on the outside.

A native of the East Indies; and if not aboriginal, certainly naturalized in the island of Tobago, where the woods,

according to Miller who received it from thence, are filled with this shrub. In Surinam, we are told by the ingenious M. Sybilla Merian, it is spread over the country like a native bush, and is frequented by peculiar reptiles. But still it is not generally considered by naturalists as indigenous in any part of the West Indies or the South American continent.

From being cultivated in Catalonia, especially in the neighbourhood of Barcelona, to a greater extent than in any other part of Europe, it has acquired the english specific name by which it is known among us. It occurs likewise in almost every garden in Valentia, Murcia, and Andalusia, where, as in Catalonia, it is completely domesticated, thrives in the open ground the year through, and is hardly ever without bloom. In Portugal it goes by the name of the Italian Jasmine. The perfume, called Essence or Oil of Jasmine, is obtained from this species. The Moors manufacture the stems of their tobacco-pipes from its branches, where a tube is formed at once by evacuating the slender column of pith. The date of its introduction into Europe appears to have escaped the records of botanical chronology. It was already known in England in 1629.

Usually propagated by ingrafting in a stock of the common sort, on which it takes well, and becomes hardier than when had from layers. In this state it is imported from the Mediterranean by the Italian-Warehousemen, along with Orange and Lemon Trees, Myrtles, and Arabian Jasmine, with which it is usually kept in our greenhouses. But if strong well-rooted plants are turned out from their pots, without disturbing the mould they grow in, then placed in a warm border against a wall, and covered with mats in frosty weather; these will grow much more vigorously, and produce a longer succession and greater quantity of bloom than such as are kept in pots under shelter.

The common white Jasmine, supposed native of the East Indies, but the natural abode of which has been left a blank by the editors of the Hortus Kewensis, has been found by some late russian naturalists to be indigenous in Imeretia, Circassia, and the adjacent regions.

a The calyx. *b* A section of the tubular portion of the corolla. *c* The pistil.



Sppl.^m Edwardsa del.^v

Publ. by J. Robynson 176. Periodically. Nov. 1. 1846

Stemata & S. 1846

CALDASIA heterophylla.

Pair-flowered Caldasia.

PENTANDRIA MONOGYNIA.

CALDASIA. *Cal.* (inferus), persistens, tubulosus, ore 5-dentato. *Cor.* (hypocrateriformis, flexa :) tubus angustus calyce longior, erectus: limbus (nutans,) 5-partitus, subbilabiato-rotatus, laciniis 2 superioribus collateraliter-conniventibus, majoribus: 3 inferioribus subæqualibus inter se, divergentibus. *Fil.* capillaria, declinata, corollæ æqualia, inserta summo tubo infra faucem. (*Germ.* trispermum.) *Stylus* capillaris longitudine staminum. *Stig.* 3, replicata. *Caps.* ovata, 3-gona, 3-loc., 3-sperma, 3-valv., valvis medio septiferis: recept. centrale, 3-quetrum: sem. elliptica. *Herba* ebracteata extipulacea: *radix* fibrosa: *folia* sparsa, *floralia* opposita: *flores* axillares. *Cavan.* ic. 6. 21 (sub **BONPLANDIA**); nonnullis mutatis.

C. heterophylla. *Willd.* hort. berol. 1. 71. t. 71. enum. 202.

Bonplandia geminiflora. *Cavan.* ic. 6. 21. t. 532.

Bonplande à fleurs axillaires. *Poiret suppl. encyc. de Lamarck*, 1. 678.

Herba graveolens, annua? densè subviscoso-pilosa pilis patentissimis articulatis diaphanis glandulosis. *Caulis* erectus, 1-2 pedalis, teres, sparsè ramosus, ramis ascenduntibus supernè versùs remotè floriferis. *Folia* distantia, varicoso-nervosa rachide mediâ nervos plurimos parallelos costatim approximatos et sursum obliquatos utrinque emittente; inferiora sparsa, petiolata, oblonga, sublyrata, acuta, serrata, 3-4-uncialia, ramea superiora opposita unica alternè florifero, gradatim decrescentia, subsessilia, elliptico-lanceolata, integriora, versùs basin longiùs attenuata. *Flores* pedunculati, gemini, terminales et per alterna paria axillares, foliis breviores: pedunculi 1-flori, paralleluli, erectiusculi, subæquantes calycem. *Cal.* membranaceo-herbaceus, oblongus, tubulosus, angustè turbinatus pentagonus angulis extenuato-prominentibus et nervo medio parallelo interceptis, 5-fidus segmentis erectis ovatis angulatulo-acuminatis, intùs glaber, tubo cum fauce simul æqualis. *Cor.* $\frac{3}{4}$ uncia longa, tubus pallidus, cylindricus, ad faucem ubi flexus atque dilatatus posticè pubescens: limbus violaceus, glaber, laciniis obcordato-oblongis; binis supremis basi intùs albâ areolâ lineis violaceis figuratâ notatis. *Fil.* conniventia, basi barbata et sursum pilis nonnullis vagis conspersa, subæqualia: antheræ dorso appensæ, extrorsum versæ. *Germ.* parvum, ellipticum, viride, glabrum: stig. intùs pubescentia.

The first notice we trace of this plant is in the works of Cavanilles, where it founds a genus, by the title of **BONPLANDIA**, given in honour of the associate and coadjutor of Monsieur de Humboldt. But in a tract in the Transactions of the Berlin Academy for 1802, Professor Willdenow has attributed the same title to a genus instituted from the tree which affords the drug called "Angostura Bark," and

has been followed by Messrs. Humboldt and Bonpland, in their "Plantes Equinoxiales;" while CALDASIA has been substituted for the generic name of our plant, in compliment to Don Josef Caldas, an eminent botanist native of Popayan in New Granada, now living.

A tender herbaceous fibrous-rooted annual? diffusing a strong smell, to us like that of the common Horehound. *Stem.* 1-2 feet high, upright, branched, branches ascending, scattered, covered, as well as the foliage, with a close pubescence of sub-viscid transparent glandular minutely articulated erected hairs. *Lower cauline leaves* 3-4 inches long, scattered, petioled, oblong, sublyrate, acute, serrate; *upper rameous ones* opposite, subsessile, elliptic-lanceolate, entire, one of each pair alternately flowerbearing, the whole marked with many near parallel transverse varicose subascending nerves, issuing from each side of a middle vertical rachis. *Flowers* peduncled, terminal and axillary in distant alternate pairs, parallel, upright, shorter than the foliage. *Calyx* herbaceous, tubular and tapering downwards, narrow, pentagonal, with sharp prominent angles, segments 5, angularly ovate, pointed, upright. *Corolla* less than an inch in depth, subbilabately hypocrateriform, tube bent at the faux where it widens, limb inclining forwards, segments obcordate and oblong, two upper largest converging, with a white figured spot at the base of each. *Stamens* connivent, projecting, declining, about equal to the limb, bearded at the base. *Germen* small, smooth, oblong, trilocular, and three-seeded. *Stigmas* pubescent inwards.

Native of Mexico; introduced since the publication of the last edition of the Hortus Kewensis, by Mr. William Anderson, curator of the Chelsea Physic Garden. Mr. Edwards was favoured with the specimen from which the drawing was made, from Mr. Aylmer Bourke Lambert's collection at Boyton, Wiltshire, in January last. Willdenow says, if kept in the stove in winter and in the open air in summer, it will ripen the seed. Mr. Lambert's gardener observes, that it is peculiarly liable to be infested with the red spider, and that it is only to be rescued from that plague of the hothouse by copious waterings over the head of the plant.

a The calyx. *b* The corolla. *c* The same dissected vertically. *d* The pistil; slightly magnified.





STEVIA Eupatoria.

Hemp-Agrimony-like Stevia.

SYNGENESIA POLYGAMIA ÆQUALIS.

STEVIA. Recept. nudum. Pappus aristato-paleaceus. Cal. cylindraceus ex simplici foliorum serie. Willd. sp. pl. 3. 1774.

S. Eupatoria, foliis lanceolatis in petiolum attenuatis trinerviis apice obsolete subserratis, corymbis fastigiatis, pappo paleaceo & aristato. Willd. in Mag. der gesell. nat. fr. zu Berlin, 1807. 138.

Stevia Eupatoria. Willd. sp. pl. 3. 1775. Id. enum. 854. Hort. Kew. ed. 2. 4. 510.

Stevia purpurea. Persoon syn. 2. 402.

Mustelia Eupatoria. Sprengell in Lin. soc. trans. 6. 152. t. 13?

Planta herbacea, perennis, bipedalis, nunc recumbens. Caulis paniculato-ramosus; rami teretes, villosi, laxè foliosi ramulis floriferis corymboso-fastigiantibus. Folia laxius sparsa, sessilia, oblonga, uncialia v. infra, obtusa cum brevi acumine, integra, v. rarius superne obiter et obtusè subserrata, punctata, margine villosa, trinervia, deorsum attenuata. Flores pedicellati, summis ramulis in corymbulos partiales approximati, 5-flosculosi, parvuli, rubicundi; pedicelli fastigiantes, in supremis foliis axillares, 1-flori. Cal. virens, villosus, duplo brevior flosculis; foliola 5, lineari-lanceolata, carinata, conniventia in tubum oblongum. Flosculi discoidei, tubulato-hypocrateriformes, externè villosi, limbo radiato-partito, laciniis lineari-oblongis, obtusis concavis, bis magisve brevioribus tubo. Anthera inclusa, mutica. Stigmata 2, capillacea, longius exserta, divaricata, replicata. Germen longum, ac calyx gracile, verticale, nervoso-angulatum: pappus biformis, ex paleis tribus brevibus obtusis muticis alternantibus cum aristis totidem setaceis plumosis subæquantibus flosculos.

A genus as yet wholly mexican, recently introduced into our gardens, and likely, from the species which it already counts, to prove of some extent. The name has been given by the late Professor Cavanilles, in commemoration of Dr. Peter Jacob Steve, or Esteve, an eminent physician of Valentia, and professor of botany in the university of that city, about the middle of the sixteenth century. It differs from *EUPATORIUM* and *AGERATUM* by a calyx of one rank of leaflets, and by a pappus, one portion of which is long and awned, the other short, paleaceous, and obtuse.

The present species is described as being usually recumbent, but the drawing was made from a specimen which was supported, so that the appearance it might have had when free, has probably not been preserved in the figure.

It seldom exceeds two feet, is herbaceous and perennial, and forms (when supported at least) by the numerous fastigiate panicked branches, a compact broad level-topped corymb, studded with small rose-coloured flowers. *Calyx* green, comprising five fertile discoid *florets*, which are tubular, villous, and twice as long as the calyx, with a radiate limb 2 or 3 times shorter than their tube. *Germens* on a bare receptacle, even with the calyx, slender, tapered downwards, with nerved angles: *pappus* six-fold, of 3 short obtuse pointless paleas alternating with as many setaceous plumed awns, nearly equalling the floret in length. *Anther* enclosed, pointless. *Stigmas* capillary, extruded far beyond the floret, divaricate, recurved. *Foliage* sessile, loosely scattered, seldom exceeding an inch in length, patent, oblong, dotted, villous at the edge, three-nerved, obtuse with a short point, sometimes obscurely and bluntly serrate at the upper part.

We do not think ourselves so certain of Dr. Sprengell's synonym as of that of Willdenow. The figure which is annexed to the description given by the former of those botanists, does not correspond with the text, where the awns in the pappus are said to be five, while the dissections in the engraving show but three, in our opinion the real number. But neither figure nor description are such as to inspire much confidence, altho' we believe them intended for the present species.

The drawing was made from a plant sent to Mr. Edwards in October last, by Mr. N. S. Hodson, from his collection at South Lambeth.

Marked in the Hortus Kewensis as hardy; but we should think must require shelter in the winter.

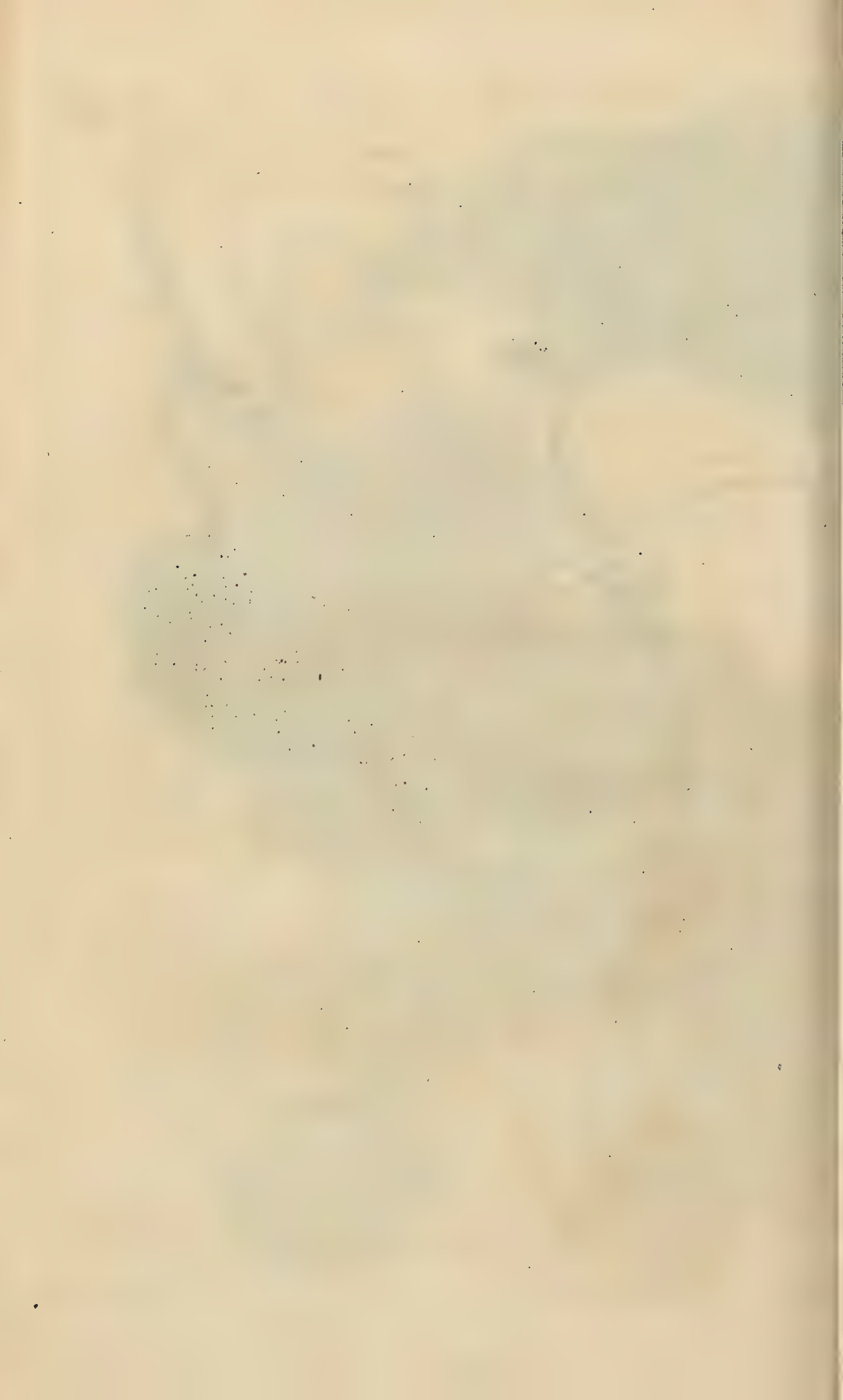
a An aggregate or compound flower: magnified. *b* A floret taken from the flower, with the germen: magnified. *c* The germen and pappus.



Syd. Edwards. del.

Pub by J. Kutzweg. 170. Locustville, March 1871.





PASSIFLORA maliformis.
Apple-fruited Passionflower.

MONADELPHIA PENTANDRIA.

PASSIFLORA. *Suprà vol. 1. fol. 13.*

Div. foliis indivisis.

P. maliformis, foliis oblongo-ovatis cordatis triplinerviis venosis integerrimis, petiolis biglandulosis, involucri triphylo flore majore.
Willd. sp. pl. 3. 608.

Passiflora maliformis. Amæn. acad. 1. 220. fig. 5. Linn. sp. pl. 2. 1355. Hort. Kew. 3. 306. ed. 2. 4. 148. Jacq. hort. schænb. 2. 27. t. 180. Andrews's reposit. 217 (in textu 207 sed malè.) Miss Lawr. passionfl.

Passiflora 4. foliis cordatis productis, petiolis biglandulis, fructu sphaerico, pericarpio duriore. Browne jam. 328.

Clematis indica latifolia, flore clavato, fructu maliformi. Plum. amer. 67. t. 82.

Tota glabra. Caulis teres, fruticosus, 12-20-pedalis, pollicem crassus, suberoso-corticatus, ramosus, scandens, pallido-fuscus. Folia ovato-oblonga, basi subcordata, acuta, integerrima, 3-nervia, firmula, suprà nitida, subtus reticulato-venosa, 4-6 uncias longa: petioli biglandulosi (Jacq.), unciales: stipulæ lanceolatæ, parabolicæ. Pedunculi petiolo duplo longiores, axillares, uniflori, solitarii, deflexi. Flores pendulo-cernui, patentissimi, indè reflexi, fragrantés. Involucrum 3-phyllum, positum proximè ponè calycem et sublongius, herbaceum, rubro-nervosum, foliolis lato-ovatis, acutis, sesquiuncialibus, eglandulosis, integerrimis. Cal. herbaceus, diametro fermè triunciali, fundo pro $\frac{1}{3}$ parte urceolato-arctatus, intus supernè sanguineo-punctatus, segmentis oblongo-lanceolatis, dorso medio carinatis, externè setâ nervi principis continuâ sub apice præfixis. Cor. imposita tubo calycis: similis calyci formâ colore atque directione, sed brevior 2-3-plo angustior tenerior insigniùs punctata et mutica. Corona 3-plex, rubro-violaceo et albo punctata atque annulata; exteriores radii duplo breviores proximis interioribus, subulato-filiformes reflexi et retorti in cincinnos; interiores æquantés calycem, lineari-subulati, cuspidati, compressi, numerosi, a parte compressâ collaterales, erecti, patuli; intimi parvi, tuberculiformes, conici, parietem colli cavitatis calycinæ sine ordine obvestientes. Operculum horizontale, accumbens annulo prominulo inferiori incrassatâ baseos columnæ. Septum album, parùm elevatum, cavum calycinum circinans. Columna duplo v. ultrà brevior calyce, teres, glabra, rubropunctata, suprà basin incrassata cinctaque annulis duobus carnosissimis parùm distantibus, inferiore marginato-extenuato, superiore obtuso. Anth. luteæ. Stigmata viridia, anticè reniformi-obtusata. Germ. elliptico-oblongum, glabrum. Bacca (Pepo) oblongo-v. oblato-rotunda, viridi-flavescens, tectus cortice crasso solido subputamineo-indurato: pulpâ seminum flavicante subacidâ.

A climbing shrub, natural to many parts of the West Indies. In Jamaica it is frequent in the woods, where the

fruit is said to form a principal part of the food of the wild swine. It is also used at the dessert, the pulp possessing a subacid flavour grateful in hot climates. The hard shell-like rind is dried, and manufactured in the french colonies into snuff-boxes, bonbonnières, and other toys, such as we sometimes see formed of the peel of Lemons or of Limes.

The species comes the nearest to *laurifolia* of any other known to us; but differs in having a broader three-nerved cordate-oblong foliage of a yellower green; by larger stipules; by a red-veined unnotched glandless involucre, which is rather longer than the calyx; by outermost coronal rays, that are retroverted and wound in ringlets; and by a pericarp, or seed-vessel, which is round, even, and almost as hard as that of a walnut in its green peel. The bloom is slightly fragrant, green and white, variegated with dots and circles of red and violet. When the shrub is of sufficient age, and planted in the border within the bark-bed of the stove, an abundance of both bloom and fruit is produced.

We have purposely omitted the standing synonym from Miller's Dictionary, the description differing in so many points, as to make it impossible for us to believe the writer had this species in view. The plant has been long known in our collections; but if Miller's is really different, we have no means of knowing at what time it was first introduced.

The drawing was made in November last, from a plant of long standing in Mr. Vere's collection at Kensington Gore. It had been in bloom for more than two months in succession.

a An outer ray of the crown. *b* An inner ray of the same. *c* The lower ring of the pediment of the column. *d* The upper one. *e* The operculum or ruffle. *f* The small tubercles which line the neck of the calycine tube, and form the inmost compartment of the crown. *g* The fruit partly enclosed by the involucre.



Lyt. Edwards del.

Publ by J. Ridgway 170. Piccadilly. March 1. 1816.

Smith Sc.

PASSIFLORA rubra.
Red-fruited Passionflower.

MONADELPHIA PENTANDRIA.

PASSIFLORA. *Suprà vol. 1. fol. 13.*

Div. Foliis bilobis.

P. rubra, foliis cordatis bilobis acutis mucronatis subtus pubescentibus, petiolis eglandulosis, fructu obovato. *Willd. sp. pl.* 3. 611.

Passiflora rubra. *Amæn. acad.* 1. 222. fig. 9. *Linn. sp. pl.* 2. 1356. *Swartz obs.* 336. *Jacq. ic. rar.* 1. t. 186. *Coll.* 1. 136. *Cavan. diss.* 10. 445. t. 268. *Hort. Kew.* 3. 307. ed. 2. 4. 149. *Miss Latr. passionfl.*

P. foliis tenuioribus trimerviis bicornibus lunatis: sinu anteriore obtuso. *Browne jam.* 328.

Clematidis indica, flore clavato suaverubente, fructu hexagono coccineo, folio bicorni. *Plum. amer.* 68. t. 83.

Flos passionis folii media lacinia quasi abscissa, flore minore carneo. *Sloane jam.* 1. 229.

Herbacea, perennis, altitudinem biorgyalem v. ultra attingens, villosa. Caulis ramosus; rami flexuosi, hirsutiùs villosi, angulati, rubentes. Folia lenta, molliùs villosa, subcordata, semitruncato-biloba lobis bicorni-distantibus antrorsùm flexis acuminatis mucronulatis sinu lato lunato distinctis et interdum in medio sinûs altero tertio brevi atque obsoleto interceptis, rubro-trinervia: petioli teretes, laxati, patentes, rubentes, eglandulosi, pilosi, folio pluriès breviores: stipulæ binæ laterifoliæ, subulato-lineares, parvæ, rubræ. Pedunculi solitarii (modò trini aggregati?) 1-flori, axillares, folio breviores. Flores nutantes, subrubentes, sesquiunciam circa transversî, subodori, fugacissimi. Cal. rotatus, externè villosus, herbaceo-pallescent, rubro-striatus, disco suburceolato-arctatus, subtilis gibboso-prominens et puncto centrali intrusus; segmentis oblongo-lanceolatis. Cor. tenuior, pallido-sordescens, lacinia segmentis calycinis 2-3-plo angustiores, lineares. Corona subroseo-rubescens; radii exteriores parum breviores calyci, numerosi, serie simplici densati, erecto-patentes, filiformi-attenuati, obtusi; interiores minuti sic ut non nisi accuratè perscrutanti obvii, pede exteriorum alternè positi: operculum nudum plicatum membranosum incumbens nectario profundè depresso. Recept. columnæ glabrum, zonatum dissepimento crasso albo; stipes ruber, glaber, maculatus, germine vix alterâ vice longior. Germ. ellipticum, sericeo-hirsutum, canescens. Anth. oblongæ, virides. Stigmata subpileato-capitata, orbiculata, depressa, fulva. Pepo oblongo-rotundus v. ovato-oblongus, sæpiùs sulcis senis prominulis subhexagonus, ruber, pubescens, parenchymate corticis coriacei albicante; modò in segmentis senis sponte dehiscens? Sem. nigrâ.

A West Indian species, found abundantly in the island of Jamaica, where it is popularly called "The Bull-hoof," also "Dutchman's Laudanum." The first name has been most probably suggested by the form of the leaf; the other

derived from the medicinal virtue of the flowers, of which, according to Browne, a tincture is formed by infusion in wine or spirits, used in the leeward parts of the island for the same purposes as Laudanum, having the reputation of being a safe narcotic.

A perennial villous plant; *stem* slender, weak, of a reddish hue, herbaceous, but Jacquin says not annual, climbing to the height of 10-15 feet. *Leaves* distant, pliant, covered with a soft pubescence, at the lower half broadly cordate, at the upper truncate with a crescent-shaped incisure, between the two acuminate lobes which form the horns of the sinus an incipient third one often appears with a small mucro, this is rounded and broader than long; *petioles* short and flexile. *Flowers* solitary, of distinct colours, but so combined as to afford the appearance of a uniform dull red, about an inch and half over, villous and streaked on the outside, nearly scentless; *peduncle* pliant and slackened, the inner rank of the rays of the *crown* being very small and masked by the outer, is easily overlooked on slight inspection. *Germen* clothed by a dense silky pile. *Fruit*, from which the specific name is taken, is described as of a dingy red colour, pubescent, sometimes nearly of the size and form of an olive, sometimes sphaerical, sometimes ovate, with six external parallel equidistant longitudinal ridges, more or less raised; when ripe, according to Jacquin, it sometimes separates at the top into six valves. *Rind* thick, coriaceous and white within. *Seeds* black.

Near akin to the *PASSIFLORA capsularis* of Linnæus, which Mr. Dryander believes to be the same with the *punctata* of Miss Lawrance's drawings of the plants of this genus; but distinct from the *capsularis* of Miller, which appears by his own specimen in the Banksian Herbarium to be a mere variety of *oblongata*. In the Hortus Kewensis *rubra* is stated to have been cultivated by Miller, on the presumption it was his *capsularis*; but his own specimen showing he had a different plant in view, the authority is irrelevant.

The drawing was made from a plant which flowered late in the autumn, in the stove at Messrs. Whitley, Brames, and Milne's nursery, Parson's Green, near Fulham.

a A ray of the outer row of the crown. *b* The inner row of minute rays.
c The nectary. *d* The partition between that and the receptacle of the column.





Sigel & daterede del

Pub by J. Ridgway, 170 Broadway, March 1, 1816.

Smith Lc

MALPIGHIA urens.

Stinging Barbadoes Cherry.

DECANDRIA TRIGYNIA.

MALPIGHIA. Cal. 5-partitus, persistens, laciniis quibusdam extus biglandulosis. Cor. pet. 5, calyci alterna, disco hypogyno inserta, unguiculata, ungue lineari. Stamina filamentis basi coalitis, antheræ subrotundæ. Germ. simplex: styli 3: stig. 3. (*Drupa* baccata 1-ocularis, tripyrena, nucibus monospermis. Willd.) Arbores aut frutices, quidam sarmentosi; folia opposita, simplicia, substipulacea, quorundam subtus aut margine setosa, setis urentibus utroque fine liberis; petiolus in pluribus basi intus appendiculatus aut dilatatus; pedunculi axillares aut terminales, uni aut multiflori. Jussieu gen. 253.

M. urens, foliis oblongis, setis bicuspidatis decumbentibus, pedicellis elongato-capillaceis geniculatis unifloris in pedunculo brevi subaggregatis.

Malpighia urens. Linn. sp. pl. 1. 609. Cavan. diss. 8. 407. t. 235. fig. 1. Hort. Kew. 2. 104. ed. 2. 3. 104. Willd. sp. pl. 2. 734; (excl. synom. Mill. dict. n. 4. quod spectat editionem octavam, ubi agitur de plantâ haud hujus loci.)

Malpighia viminea, foliis oblongis hispidis, racemis alaribus. Browne jam. 229. 1.

M. foliis oblongo-ovatis acuminatis setis pungentibus, pedunculis unifloris verticillatis. Mill. dict. ed. 7. n. 8. Ic. 121. t. 181. f. 1.

M. latifolia, folio subtus spinoso. Plum. ic. 160. t. 167. f. 1.

Arbor baccifera, folio oblongo subtilissimis spinis subtus obsito, fructu cerasino sulcato polypyreno: ossiculis caualiculatis. Sloane jam. 2. 106. t. 207. f. 3.

Frutex erectus ramosus, cortice fusco; rami supernè villosi. Folia distantia, 3-uncialia, oblonga, modò obversa cum brevi acumine, venosa cum rachide subtus villosâ, breviter petiolata, adspersa præsertim à prono setis rigidis, urenti-pungentibus, utroque fine cuspidatis, folii superficiei parallelo-acumbentibus, à medio affixis, longitudinaliter directis. Flores per corymbos folio breviores laxos plurifloros solitarios axillari-oppositos ordinati: pedunculus curtus erectus fuscus villosus robustus bracteolatus: pedicelli aggregatim approximati, pluriès longiores, capillaceo-graciles, subdiffusi, geniculo bracteolâ geminâ oppositâ stipato infra medium intercepti. Cal. parvus, carnosulus, virens, basi extus villosus, laciniis singulis biglandulosis. Cor. irregularis, albo-rosacea, $\frac{3}{4}$ uncia transversa: pet. cochleari-spatulata, laminæ concavæ orbiculatæ, summa major remotior margine eroso-crispata, laterales 2 oppositæ, imæ 2 contiguæ integræ margine subexplicatæ. Stam. unguibus petalinis parum longiora: fil. 2 petalis lateralibus astantia duplo crassiora reliquis. Drupa baccata, trisulca, colore formâ et mole fermè cerasino: nuces extrorsum convexi, dorso incisi lincis, introrsum angulato-extenuati.

This genus is chiefly composed of shrubs belonging to the West Indies, where they have acquired among the English colonists the title of "Barbadoes Cherries," from the likeness of their fruit, both in form and colour, to the European Cherry. In several sorts it is eatable.

The present species is called in Jamaica, where it grows naturally, "the Couhage-(corruptly? Cow-itch) Cherry," from the stinging foliage. It is an upright branching shrub, seldom exceeding 4 or 5 feet in height, with a brown bark, pubescent on the young wood. *Leaves* opposite, scarcely 3 inches in length, oblong with a short point, beset, particularly underneath, with numerous straight parallel bristle-shaped stinging prickles, pointed at both ends, fastened down at the middle, lying parallel with the surface of the leaf, one point turned towards the summit, the other towards the base; being sharp, rigid, and brittle, they penetrate the flesh on the slightest touch, and breaking off, leave behind the cause of a distressing irritation not easily allayed.

The flowers are placed within the axils of the upper foliage, upon a short thickish *peduncle* terminated by several slender flexile one-flowered subaggregated *pedicles*, jointed and embraced by two small *bractes* below their middle. Segments of the *calyx* biglandular outwards at the base. *Corolla* of a palish rose-colour, somewhat irregular, having the upper middle *petal* more distant, and the two lower connivent. *Drupe* or *stone-fruit* three-furrowed, about the size, form, and consistence of a cherry, containing three small yellow nuts.

Native of South America. Cultivated in 1737 by Mr. P. Miller. Blooms in the autumn.

The drawing was made from a plant in the hothouse at the nursery of Messrs. Lee and Kennedy, at Hammersmith.

a The calyx. *b* A petal of the corolla. *c* The stamens, monadelphously webbed near the base. *d* The germen, and styles with stigmas.



Syl. Edwards del.

Sub by J. Kutyng 190 Piccadilly March 1. 1876.

Smith R.

CLEMATIS brachiata.

Brachiate Cape-Virgin's Bower.

POLYANDRIA POLYGYNIA.

CLEMATIS. Cal. 0. Cor. pet. 4, rariùs 5. Germina supera, plurima, receptaculo communi imposita, unicuique stylus unicus; stigma simplex. Capsulæ totidem monospermæ non dehiscentes, aristatæ, aristâ sæpè plumosâ. Caulis sæpè frutescens, sarmentosus aut erectus; folia opposita, simplicia aut ternata aut pinnata; flores axillares aut sæpiùs terminales, solitarii aut sæpiùs corymbosi, in quibusdam dioici, in paucis instructi calyculo turbinato bifido à petalis paululùm remoto. Jussieu gen. 232.

Div. scandentes.

C. brachiata, foliis quinato-pinnatis, rariùs ternatis, infernis modò biter-natis, foliolis ovato-lanceolatis, subdentatis; pedunculis 3-5-floris, brachiatis; corolla 4-petala, nutante, acuta.

Frutex sarmentosus, celsissimè scandens ope summorum foliorum cir-rorum ad instar se contorquentium, sempervirens, brachiato-ramosus. Folia brachiato-opposita, quinato-pinnata, proximè sub paniculâ sæpè ternata, in-feriora biter-nata, glabra, lucida, à supino atro-virentia, semipedalia v. circà; foliola firmula, patentissima, distantia, 1-2 uncialia, ovata, acuminata, in summo dimidio dentibus inæqualibus laxiùs densiusve serrata, 5-nervia reticu-lato-venosa, 2 exteriora minora, nunc confluentia cum terminali: petiolus communis gracilis, elastico-rigens: partiales bis ter breviores folio. Pedunculi ternato-vel quinato-brachiati, foliosi, villosi, in summis ramis oppositi, axil-lares, solitarii, stricti, robusti, foliis breviores; pedicelli recurvuli, crassi, teretes, 1-flori è foliolo simplici, flore breviores, infra medium geniculati et stipati bracteis 2 ovato-lanceolatis decussantibus foliolum ad basin positum. Flores primò cernui, indè nutantes erectiores, viridi-flavescentes. Cal. 0. Cor. 4-petala, coriacea, tota tomentosa, revoluta-rotata, æqualis, obsoletè striata, citiùs decidua; petala ovato-oblonga, lanceolata, acuta. Stamina parùm breviora, lineari-subulata, plano-convexa, dorso et supernè intus pilosa, infernè intus nuda; anth. lineari-oblongæ, adnatæ, erectæ, recurvulæ. Pis-tilla istis subæqualia, congesta et lanâ spissâ sericeâ implexâ continentes.

An unrecorded species, and the only one of the genus from the Cape of Good Hope (where it was found growing naturally by Mr. Niven) as yet known to have blossomed in our gardens. It has been lately raised from imported seed by Mr. Middlemist, nurseryman at Shepherd's Bush. The specific name is borrowed from the Banksian Herbarium, in which we found a sample of the spontaneous plant, collected by the late Mr. Masson.

A slender evergreen branching sarmentose *shrub*, climbing, when it finds the means, to a considerable height, which it reaches by the help of the upper leaves, that serve as claspers, and twine themselves round whatever suits for support. *Foliage* of a dark shining green, brachiate, quinate winged, next the panicle often ternate, lowermost biternate; *leaflets* ovately lanceolate, loosely and irregularly serrate at their upper half, three outer ones sometimes confluent: *petioles* slender, wiry, elastic. *Peduncles* axillary, opposite, upright, villous, 3-5-flowered, brachiate and shorter than the leaves; each *pedicle* set in the axil of a simple ovate leaflet, one-flowered, thick, with a bibracteolated joint below the middle. *Flowers* coriaceous, sweet-scented, of an opaque greenish buff colour, at first cernuous, afterwards less declined, entirely covered by a short close downy pile: *petals* 4, recurvedly rotate, acute, deciduous. *Pistils* held together by a long entangled close silky wool with which they are covered.

A greenhouse plant of easy culture. Propagated by layers with the facility common to sarmentose plants. Flowers about November.

A genus comprised in the *Ranunculaceæ* of Jussieu. An order by which it is the intention of Professor Decandolle to commence his arduous, and till now unattempted, enterprise, "The System of Vegetables arranged according to natural affinity." An attempt of which the proved talent of the author justifies the best expectation. He is now here to avail himself of the treasures in the library and herbarium of Sir Joseph Banks, made free to science with a munificence that has no example; and resorted to from every point of the globe with a confidence that has never been indulged in vain.

The drawing was made from a plant that flowered at the greenhouse of Messrs. Whitley, Brames, and Milne, Parson's Green, near Fulham; and we hear that at Messrs. Lee and Kennedy's nursery, Hammersmith, there is another unrecorded species of the genus from the Cape of Good Hope, which has not yet flowered here, but is expected to do so this summer.

a A stamen. *b* A pistil.



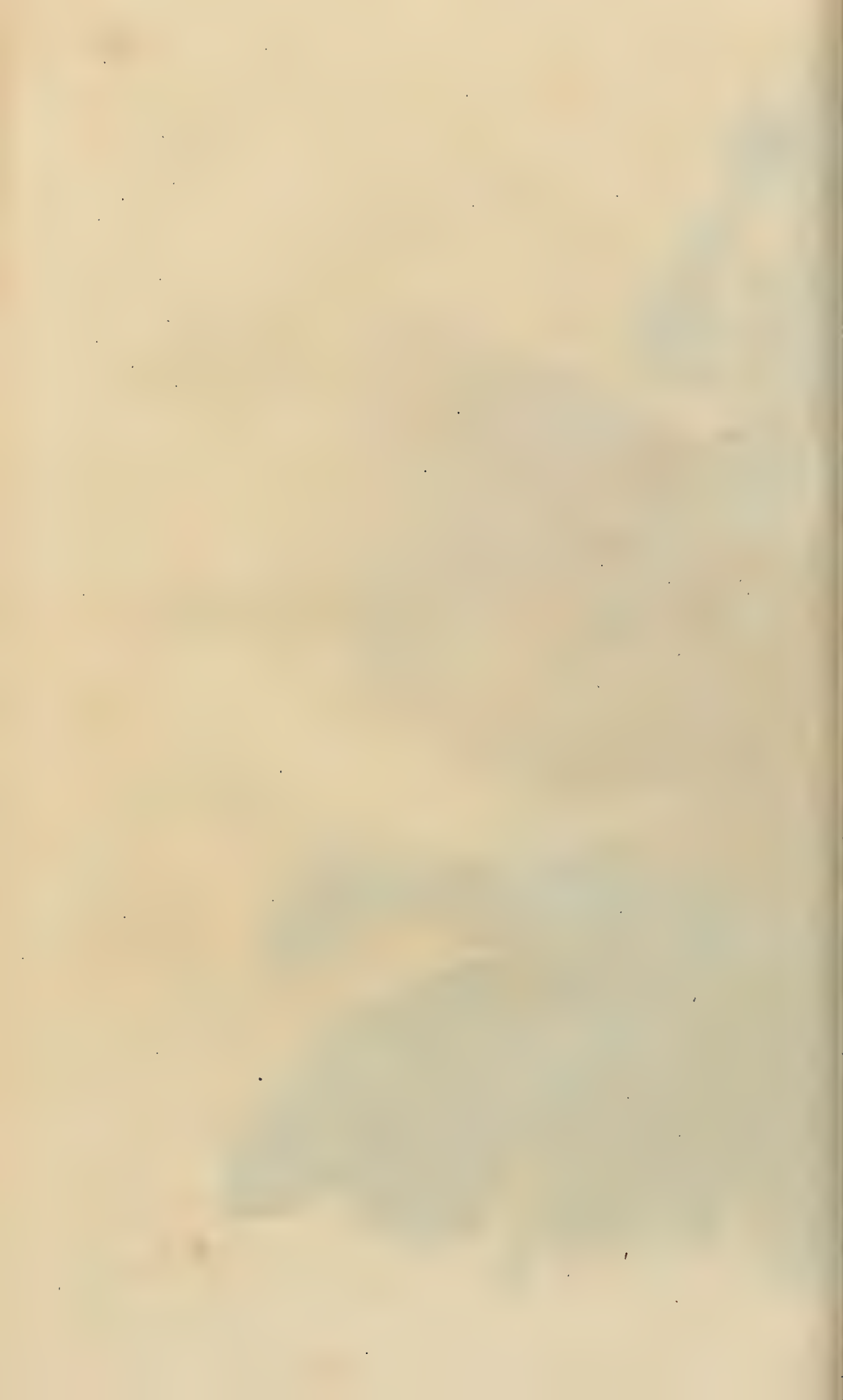
Bot. Edwards del.

Bot. by J. Redgrave.



Secundally. April. 1. 1816.

Smith. sc.



ACACIA Houstoni.

Houstoun's Acacia.

POLYGAMIA MONÆCIA.

Ord. Nat. LEGUMINOSÆ. Jussieu gen. 345.

ACACIA. HERMAPH. Cal. 5-dentatus. Cor. (regularis infundibuliformis,) 5-fida v. 5-petala. Stam. 4-100. Pist. 1. Legumen bivalve, (continuum s. non articulatum. Gærtn.)

MASCULI. Calyx, corolla, et stamina ac in hermaphroditis. Willd. sp. pl. 4. 1049.

Arbores aut frutices, inermes aut ad basin petiolorum passimve aculeata. Folia abruptè pinnata, vespere contracta mane expanduntur. Flores capitati v. spicati, axillares terminalesve. Jussieu gen. 346; (sub MIMOSA.)

Div. Foliis duplicato-pinnatis, caule inermi, spicis filiformibus.

A. *Houstoni*, inermis, foliis bipinnatis, partialibus subsexjugis, propriis multijugis, petiolis tomentosis, spica terminali interrupta. Willd. sp. pl. 4. 1062. Hort. Kew. 2. 5. 465.

Anneslia falcifolia. Salisb. parad. 64.

Mimosa *Houstoni*. L'Herit. sert. angl. 30. Reliq. houst. t. 26; (ic. sine titulo.)Mimosa *houstoniana*. Mill. dict. ed. 8. n. 16.

Gleditschia inermis. Linn. sp. pl. 2. 1509; (excl. syn. Duhameli.)

Acacia americana non spinosa, flore purpureo, staminibus longissimis, siliquis planis villosis, pinnis foliorum tenuissimis. Houst. MSS. 22. Mill. ic. 4. t. 5.

Folia oblata, 6-8-juga; pinnæ subquadriunciales, multijugæ, pinnulis contiguis lineari-angustis acumine brevi obliquo, basi per paria obverso-confluentibus, rachidi subtus annexis ab angulo altero obliquo baseos, ab altero acuto et sublato liberis, subtus appressè villosis, versus utrumque finem pinnæ decrescentibus: rachis communis basi articulata, partiales etiam. Racemus spicatus, distantè compositus, terminalis, erectus, fusco-villosus: pedunculi 2-3, aggregati, crassi, semunciales v. ultrà, pedicellis capitato-4-6-floris, brevissimis, basi articulatis. Cal. inferus, parvulus, arcus, triplo brevior corollæ, coriaceus, 5-fidus, lobis brevibus ovatis. Cor. coriacea, lenta, 5-partita, extus fusco-villosa, intus albicans, glabra, è fundo breviter turbinato patens, laciniis ovato-lanceolatis, pluriès brevior staminibus. Filamenta numerosa, capillaria, biuncialia ultràve, basi in brevem urceolum incrassato fundo corollæ accretum serie simplici connata, inde libera sanguineo-rubentia et laxius divergentia in coronam amplam obconicam: anth. parvulæ, luteæ. Germ. album, oblongum, inclusum urceolo stamineo, continuum cum stylo: stylus filiformis, parum superans stamina, 2-3 crassior filamentis: stigma album, pileato-capitatum.

The differential marks principally relied upon in distinguishing *ACACIA* from *MIMOSA*, genera intimately blended

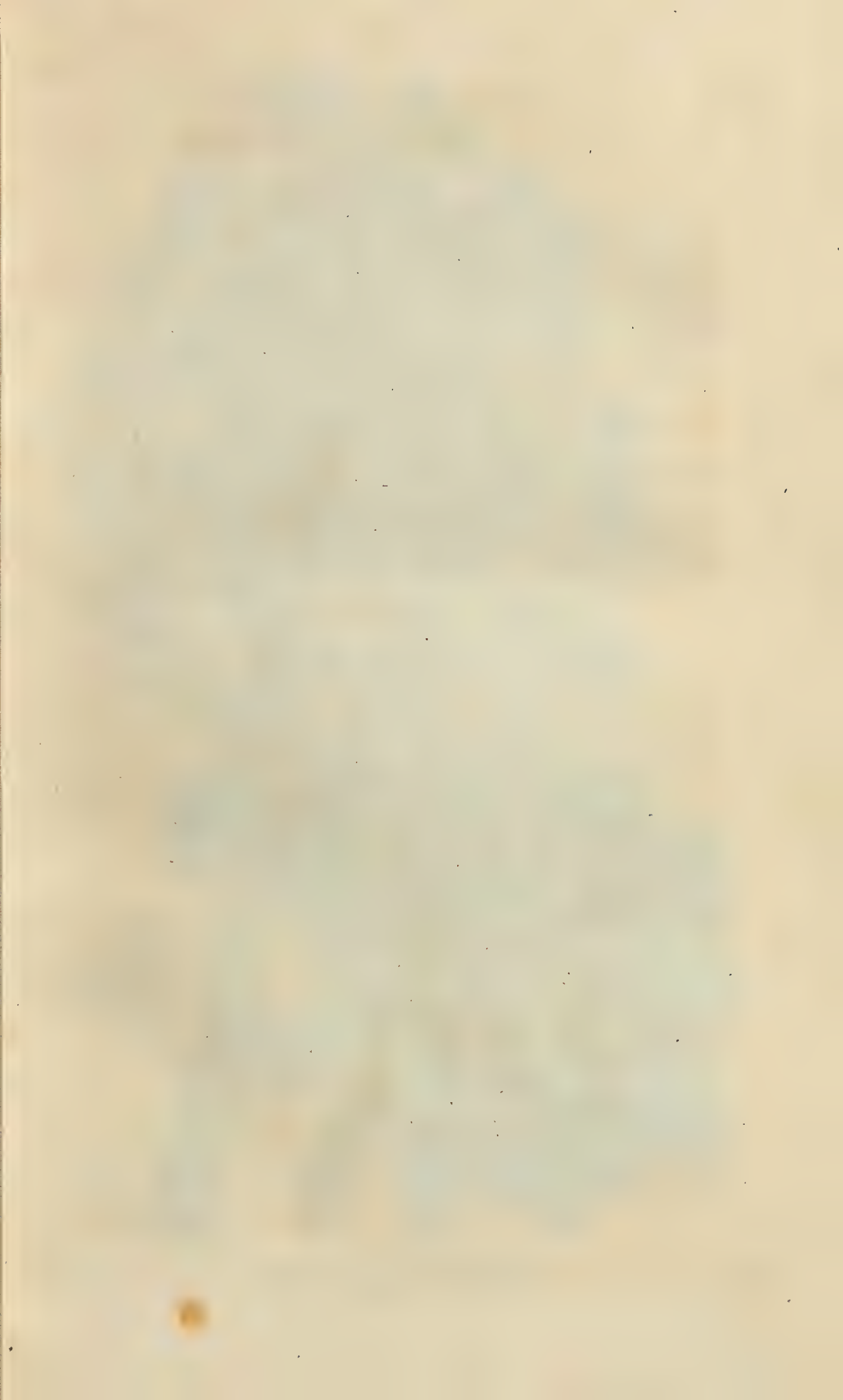
both in habit and character of inflorescence, have been obtained from the fruit. In the first this is a bivalved *legume* or pod of one entire piece, bursting lengthways; in the second a *lomentum* or articulated pod, parting at the joints into one-seeded fragments, each opening by two valves. Their generic division had been already established by Tournefort, but suppressed by Linnæus, was resumed by Gärtner, and has been adopted by Willdenow.

The present species is very commonly mistaken in our gardens for the East Indian *grandiflora*, which differs in having the wings of the leaf in 17 or 18 pairs, each wing consisting of 30 or 40 pairs of leaflets, each leaflet ovate at the base, and entirely distinct from the opposite one. In *Houstoni* the leaf has seldom more than six or eight pairs of wings, the leaflets of which are ascendent and oppositely confluent, having truncated bases attached obliquely by their outermost corners along a ledge at the under side of the petiole. In our hothouses it grows to a tall tree-like shrub, flowering freely when of sufficient age, and producing abundance of suckers when cut down, which, from its lofty growth, is necessary in the stove. *Corolla* small, persistent, of a thick leathery substance, white and smooth within, on the outside downy and of a reddish brown colour, enchased in a still smaller deciduous *calyx*. The beauty of the bloom consists in the long capillary crimson *stamens*, which spread themselves out into a broad inverted hollow cone, of from two inches to two and a half in depth. According to L'Heritier the fruit or pod is linear-oblong, acuminate, compressed, torose or knobbed where the seeds lie, and covered on the outside by a close reddish brown nap: *seeds* several, oblong, compressed, with an ocellated mark at each end, affixed along the straighter back of the pod to both the inner edges of the seam.

Native of South America, where it was collected by Dr. William Houstoun, and sent to this country in 1729.

The drawing was made from a plant of more than seven feet high, which bloomed in the hothouse of Mr. John Hall, at Notting Hill, from whose collection Mr. Edwards has been liberally supplied with specimens of several interesting plants.

a The calyx. *b* The corolla. *c* The connected or monadelphous basement of the stamens. *d* The pistil.





Edw. Edwards det.

Publ. by J. Ridgway 170, Piccadilly April 1. 1816.

Smith. Sc.

SEMPERVIVUM arboreum.

Tree-Houseleek.

DODECANDRIA DODECAGYNIA.

SEMPERVIVUM. Cal. inferus 6-12-partitus. Petala 6-12, imo calyce inserta, calycinis divisuris alterna. Stamina totidem alterna petalis: anth. subrotundæ. Germ. 6-12, basi interiori juncta, exteriori glandulosa: styli & stigmata totidem. Caps. 6-12, uniloculares, polyspermæ, intus bivalves, marginibus valvarum seminiferis. Herba aut suffrutices; folia succulenta, alterna, plana, in rosam terminalem congesta; flores corymboso-cymosi terminales, in S. arboreo 20-andri, Jussieu gen. 307.

S. arboreum, caule arborescente lævi ramoso foliis cuneiformibus glabrusculis ciliatis, ciliis patulis mollibus. Hort. Kew. 2. 147.

Sempervivum arboreum. Linn. sp. pl. 1. 664. Mill. dict. ed. 8. n. 5. Desfont. fl. atl. 1. 389. Brotero fl. lusit. 2. 378. Smith prodr. fl. græc. 2. 334. Quer fl. espan. 6. 281. Plant. grass. 125. Willd. sp. 2. 930. Hort. Kew. 2. 3. 171.

Sedum majus arborescens. Bradl. succ. Dec. 4. 1.

Sedum arborescens. Besl. eyst. aut. ord. 3. fol. 8. fig. 1.

S. arborescens majus græcum. Lob. ic. 379.

Sedum majus legitimum. Clus. hist. 2. 58.

Joubarbe arborescente. Lam. encyc. 3. 288.

Frutex succulentus, sempervirens. Caudex carnosolignescens, cubitalis ad orgyalem usque, nunc brachium crassus, erecto-ramosus; rami crassi, teretes, fusciscentes, nudi, læves, cicatrizati, non floriferi foliis in rosam patulam nutantem 3-4 uncias transversam approximatis comati. Folia ambientèr sparsa, numerosa, ex inferiorum casu terminalia, sessilia, coriaceo-crassa, cuneato-spathulata, lacte viridantia, ciliis tenuissimis albis marginata. Caules terminales, virides, carnosi, teretes, infra flores laxius consiti foliis minoribus deciduis sensim decrescens, terminati thyrsos laxo, multifloro, patulo subvillosos, bracteis sphacelatis caducis interspersos: pedunculis divisos, pedicellis 1-floris. Cal. carnososucculentus, 9-11-partitus, extus lanuginosus. Cor. paulò major, lutea, primò imbricato-contorta, inde stellato-divaricata, acuta. Glandulæ squamiformes membranaceæ albæ apice eroso-dentatæ, totidem ac germina. Stam. 18-22, alterna inserta basi petalorum, alterna in imo calyci: fil. lutea, subulata, corollæ æqualia, patentia: anth. luteæ, subrotundæ. Germ. 9-11 in orbem digesta, intus basi connexa, rostrata stylis totidem divergentibus: stigmata puncta acuta. Caps. leguminosæ, oblongæ, rostratim recurvæ, extrorsum convexæ, introrsum dehiscentes: sem. unilateralia, subrotunda.

One of our most common rate greenhouse-plants, and of the longest standing, having been cultivated here from before 1640; but is not very frequently seen in bloom, and is rather impatient of frost. Clusius notices its having been

introduced into the collections of the Low Countries in his day, but as not having then flowered.

Native of the Levant. Frequent in Portugal, where, altho' completely naturalized, Brotero suspects it is not aboriginal. Its favourite spots are rocks, old walls, and ruins. Dr. Sibthorpe found it in the island of Cyprus; the spanish botanist, Don Josef Quer, in Gallicia, growing on the walls which environ the city of Vigo.

An arborescent succulent shrub, from three to seven feet in height; well characterized by the name of Tree-Houseleek, being what we might conceive our own humble native stemless weed of the same generic name would become on assuming the dimensions and characters of a tree. The *caudex* or trunk is sometimes as thick as a man's arm, proliferous, with upright thick brown branches of a consistence between succulent and ligneous, round, with a smooth shining bark, scarred by the vestiges of the fallen foliage. *Leaves* succulent thick terminal, disposed in the form of a full-blown rose from 3 to 4 inches over and inclined outwards, sessile, between cuneate and spatulate, of a light green colour, surrounded by a tender narrow white ciliate edge. *Flower-stem* from the centre; beset below by numerous smaller deciduous leaves, beyond these branching out into a large handsome *thyrs*e, with flowers of a golden-yellow colour; the *peduncles* of which are divided and sub-pubescent. *Corolla* stellate, pointed. *Glands* at the base of the germens in the form of scales.

The drawing was made last summer from a plant in the greenhouse at Mr. Weeks's nursery, King's Road, Chelsea.

a An outline of a flower, showing the position of the scale-shaped membranous glands, situated at the base of the germens.



Lyl. Edwards del.

Pub. by J. Ridgway 170 Piccadilly April. 1. 1816.

Smith.

IXORA *blanda*.*Roxburgh's Ixora.*

TETRANDRIA MONOGYNIA.

Nat. ord. RUBIACEÆ. Jussieu gen. 196.

Div. VI. Fructus monocarpus bilocularis dispermus. Folia opposita.

IXORA. Cal. 1-phyllus, superus, minimus, 4-fidus. Cor. regularis, tubo longo gracili limbo obtusè quadripartito. Anth. ad faucem subsessiles exsertæ, limbi laciniis alternæ. Bacca 2-loc. loculis dispermis, (rectius 1-spermis monente D^o. Brown.) Frutice; flores terminales corymbosi aut conferti. Jussieu l. c. 203.

I. *blanda*, foliis ovali-v. ovato-lanceolatis, cyma trichotomo-decomposita contracta; numerosa, compacta.

Ixora alba. Roxburgh corom. ined. cum fig. pict. et exempl. sicc. in mus. banks.; (nec aliorum.)

Frutex erectus, glaber, ramosus, cortice fusco. Folia subundulata, nervosa, 3-4-uncialia: stipulæ interfoliaceæ, acumine subulato-elongato. Cyma terminalis, bracteolata, stricta, convexa, alba, pedunculis rubentibus. Flores inodori; tubus strictus, aliquoties longior limbo, laciniæ ellipticæ, denuò recurvatæ. Stylus emicans tubo fermé ad longitudinem limbi. Stig. 2.

IXORA is a branch of the *Rubiaceæ* or Madder-tribe of Jussieu, one of the more interesting natural divisions. Within it, besides the Madder, we find the Coffee-tree, the CINCHONA that yields the medicinal bark, the GARDENIA *florida* or Cape-Jasmine, the CATESBÆA or Lily-Thorn, and a chain of species connecting, thro' almost insensible transitions, the gigantic-flowered PORTLANDIA, with a nearly microscopic-flowered GALIUM. A verticillate foliage is said to mark its herbaceous members among all dicotyledonous vegetables, an opposite one connected by sheaths or stipules, the shrubby and arboreous. But the characters selected from the flower and fruit, as applied by Jussieu, are now found no longer to define this mass, which has been divided by Professor Decandolle into four orders; of these, that of the *Coffeaceæ* comprises IXORA, the fruit of which Mr. Brown has found to have two single-seeded loculaments, not two double-seeded ones, attributed to it by his predecessors. The same eminently accurate observer also tells us, that he has found the above habit in the foliage, instead of exclusively marking the arborescent *Rubiaceæ*, to blend

itself so intimately, and by such near transitions, with the foliage of the *Apocynæ*, that he is yet at a loss to discriminate the tribes in that respect.

Rubiaceæ as an ordinal designation is defective, being derived from a genus at one of the extremes of the whole; and whose image, altho' familiar in these climates, is less obviously transfused thro' the tribe than that of almost any other in it.

The present species had been considered by Dr. Roxburgh as *IXORA alba*, one that was first instituted by Linnaeus in the Flora Zeylanica from a sample in Hermann's Herbarium. But a reference to the archetype now in the possession of Sir Joseph Banks, showed that plant to be of a distinct species from *blanda*. In *alba* the foliage is elliptic with an abrupt point, the cyme more simple and fewer flowered than here, the corolla nearly three times larger, the segments lanceolate and pointed. The synonym subsequently adjected from the Hortus Malabaricus, we suspect to belong to neither.

Dr. Roxburgh found the plant in the gardens of Bengal. He speaks of it as a handsome upright branching shrub, very like *IXORA coccinea*; with leaves from 2 to 5 inches long, slightly undulated, upper ones sessile, lower petioled. *Cyme* white-flowered, with red stalks, decomposed, but compact, numerous, close, more so in the specimens gathered in India than in the present. *Stipules* terminated by a long subulate point. *Segments* of the corolla elliptic, recurved.

Introduced some few years back from India. Requires to be kept in the hothouse.

The drawing was made last November at the nursery of Messrs. Lee and Kennedy, at Hammersmith, the only place in which we have seen it.

a The calyx. *b* A flower dissected vertically. *c* The pistil.



Lyl. Edwards del.

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Smith Sc

CACALIA ovalis.

Oval-leaved Cacalia.

SYNGENESIA POLYGAMIA ÆQUALIS.

CACALIA. (Receptaculum nudum. Semen papposum. Flores flosculosi.) *Cal.* simplex oblongus, basi caliculatus. *Pappus* pilosus. *Jussieu* gen. 178. *Herbæ* v. *frutices succulenti.*

Div. Herbaceæ.

C. ovalis, foliis crassiusculis, villosis, infernis ovalibus repando-dentatis petiolatis: supernis sublyrato-amplexicaulibus.

Herba perennis villosa. Folia succulenta, utrinque brevè villosa densiùs et tomentosè a prono; inferiora caulina 3-4-uncialia, ovali-elliptica, remotè et brevè dentata, apiculo calloso fusco in dentibus, mediâ costâ subtùs varicosâ nervos aliquot distantes utrinque emittente, petiolo crasso sæpè purpurascente; summa remota, parva, sessilia, basi incisa, dentibus crebrioribus. Caulis sessui-tripedalis, erectiusculus, subvillosus, infra sanguineo-rubens, terminatus paniculâ pluriflorâ, distante, fastigiata, ramis v. pedunculis 1-floris, striato-teretibus, appressè uni-bibracteolatis. Flores odori, flavi, erecti, discoidei v. flosculosi haud multum infra unciam transversi. *Cal.* quasi monophyllus, campanulato-oblongus, sub-12-phyllus, $\frac{1}{4}$ v. circitèr brevior flosculis, subvillosus, basi imbricatus foliolis aliquot brevissimis. Flosculi numerosi, omnes hermaphroditi, clavato-tubulosi, glabri, versus periphæriam curvati; tubus teres, dilatatus in limbum cum fauce simul eo triplò brevior; lacinia lanceolata, erectæ. Anth. 5-dentata, flava, æquans limbum. Stigmata flava, filiformi-subulata, longiùs exserta, bifurco-divaricata, supernè pruinosa. Germ. pluriès brevius flosculo, oblongum, teres: pappus albus, sericeus, minutissimè denticulatus, vix æquans tubum flosculi. Recept. planum, areolatum, areolis papillam minutam includentibus.

We have not traced our plant in any recorded species. A specimen of it has been deposited in the Banksian Herbarium, which had flowered in the Kew Gardens, and is stated to have come from China. It approaches in general habit very near to *SENECIO divaricatus*, a rayless species of Chinese Groundsel; but there the foliage is of smaller size, lanceolate, and closely serrate, and the florets of the periphery of the flower, altho' floscular or tubular, are yet stamenless. A character which separates *SENECIO* from *CACALIA* according to the Linnean arrangement in order, as well as genus.

A perennial herbaceous plant, from a foot to a foot and half high. *Leaves* succulent and thick, with a short piled pubescence on both surfaces, closer on the under; *lower*

cauline ones elliptic or oval, with short teeth separated by broad shallow sinuses, from 3 to 4 inches long, with a purple petiole; *upper* ones, remote, small, sublyrate, sessile, closely toothed. *Stem* slightly villous, purple below, branching into a loose somewhat level-topped *panicle* of one-flowered *peduncles*, which are round and striate, with one or two appressed small *bractes*. *Flowers* yellow, odorous, upright, sometimes nearly an inch over. *Florets* numerous, nearly a fourth higher than the *calyx*, clavate-tubular, smooth, bending towards the periphery of the flower; tube round, nearly three times as long as the *limb* and *fauv* together. *Anther* yellow, 5-toothed, equal to the limb. *Stigmas* yellow, far protruded, divaricate. *Germen* several times shorter than its floret: *pappus* or seed-crown white, silky and most minutely denticulate. *Receptacle* flat, dotted.

The drawing was made from a plant which flowered last January, in the hothouse at the nursery of Messrs. Lee and Kennedy, at Hammersmith, the only place in which we have ever met with it.

a The receptacle, stripped of its florets. *b* A floret with its germen, and pappus or seed-crown.



Syd Edwards Del.

Pub. by J. Ridgway 170 Piccadilly April 1st 1816

Lith. Sc.

ROSA provincialis. β *muscosa*; fl. pl. albo.

Double white Moss-Provins Rose.

ICOSANDRIA POLYGYNIA.

Nat. Ord. ROSACEÆ. Jussieu gen. 53.

ROSA. Suprà vol. 1. fol. 46.

R. provincialis. Suprà vol. 1. fol. 53.

For the account of the species we refer to the fifty-third article of this work. In that place the single red Moss variety of the Provins Rose is the subject, in this the double white Moss of the same species. Both of them more rare and highly prized than any of the others. The one before us, we take it for certain, has originated in a plant of the common double red Moss Rose, from the flower of which the colour had been discharged, either thro' the effect of accident or intentionally by peculiar culture. Nor has the first tint resumed its place, but a white flower has been already transmitted for more than fifteen years, thro' a numerous series of scions. We are informed, that the first plant of this variety was produced at Mr. Henry Shailer's nursery at Little Chelsea. The drawing was made at Messrs. Colville's nursery in the King's Road, Chelsea.

In Jussieu's tribe of *Rosaceæ*, besides the Roses, are comprised as co-ordinate subdivisions, the *Pomaceæ*, including Apples, Pears, Quinces, Medlars, Hawthorns, &c.; the *Sanguisorbæ* or Burnets; the *Potentillæ*, such as Cinquefoils, Strawberries, Raspberries, Avenses, &c. &c.; the *Spirææ* or Meadow-sweets and Drop-worts; the *Amygdaleæ*, comprehending Almonds, Peaches, Apricots, Plums, Cherries, &c. &c.; the *Prockiaæ*, a tropical section, besides others whose places do not seem finally decided upon. With the greater portion of this vegetable assemblage how many of us are familiar, whom the proposition, that the whole is connected in affinity by the progressive transitions of its constituent species, and circumscribed by a common character, will notwithstanding strike as strange and improbable. Yet, according to Jussieu, the divisions we have

enumerated, besides being true within themselves, to a system where those things are placed the nearest which differ the least, are likewise so strictly connected with each other as that they cannot be transposed from the places already allotted to them, and formed into distinct approximating orders, nor yet resolved into one unbroken by such partitions. The marks that denote the tribe throughout, are, a *corolla* (when that part is present) consisting of a definite number of equal *petals* inserted in a *calyx* of one piece, bearing the *stamens* below the points at which the petals are inserted; *germens* bearing the *style* laterally, an albumenless *seed*, in which the rudiment of the future plant is extended in a straight line, and an alternate stipulated foliage.

The various fruits of this order present perhaps the readiest and most instructive examples, that these climates can naturally furnish, of the different modifications by which, thro' intervening species, one form passes gradually into another of very distinct appearance and combination. By the practised observer changes on which these attend will have been noted in the flower, but being there less obviously expressed, the real influence and importance, which belong to them in the œconomy of the plant, will, in this tribe at least, be more palpably and conclusively demonstrated to the beginner by the conspicuous distinctions exhibited in fruits with which he is already familiar,



Lyd. Edwards, del.

Colby J. Ridgway 170 Piccadilly, April 1. 1816.

L. 1816

MELALEUCA fulgens.

Scarlet Melaleuca.

POLYADELPHIA ICOSANDRIA.

Nat. Ord. MYRTI (recentiùs MYRTACEI.) Jussieu gen. 322.

Div. I. Flores in foliorum axillis aut in pedunculis multifloris oppositi. Folia plerumque opposita et punctata.

MELALEUCA. Cal. turbinatus, limbo 5-fido, deciduo. Pet. 5, parva, summo calyci inserta, ejusdem laciniis alterna. Fil. basi connata in fasciculos 5 (elongatos Brown.) sub petalis insertos: anth. oblongæ, incumbentes. Stylus 1. Jussieu l. c. 323. Caps. 3-loc., polysperma, connata et inclusa calycis tubo incrassato basi adnato (ramo.) Brown in Hort. Kew. ed. 2. 4. 410.

Frutices rariùs arbores: flores sæpiùs in spicam cylindricam summis foliis infernatem dispositi. Folia alterna, opposita v. verticillata, simplicia, plerùmque punctata.

Div. folia opposita v. verticillata.

M. fulgens, foliis oppositis lanceolato-linearibus acutis uninerviis, spicis ovalibus glaberrimis, phalangibus (staminum) multifidis: unguibus (phalangium) longitudine petalorum. Brown in Hort. Kew. ed. 2. 4. 415.

Arbuscula rigida, erecta, ramosa; cortex cinnamomeo-fuscescens, exuens cuticulam per phyllyras lineares: rami ascendentes, patentes. Folia distantiùs decussata, ascendentia, rigida, sessilia, angusta, lanceolata, uncialia, subtùs convexa viridia saturatiùs at parcè punctata, suprà concava glauca sine punctis. Flores pro genere majusculi, ramulos aliquot novellos sparsos cum ipsis simul è veteriori et sæpè defoliato ligno inferiùs in caule enatos in spicam nudam infra folia ambientes: filamenta coccinea, subsesquiuncialia.

A species made known in the second edition of the Hortus Kewensis by Mr. Brown, who discovered it growing on the south coast of New Holland; and one which proves to be the most ornamental of any MELALEUCA we possess in our collections.

The genus belongs to the Myrtle-tribe, and naturally joins to METROSIDEROS; but having the filaments united in separate parcels, and not, as in that genus, wholly distinct from each other, ranks in a different class of the artificial system of Linnæus.

Fulgens is a slender hard-wooded branching tall shrub, with a palish smooth bark, inclining to red in the young wood; in the old brown, with a cuticle which peels off in

long narrow stripes. The *leaves* are loosely decussated, each pair crossing the other at rather distant intervals: each leaf is directed upwards, is about an inch long, narrow, lanceolate, rigid, on the under side convex green and conspicuously dotted with dark glandular papillæ, the seats of an aromatic lymph, on the upper concave glaucous spotless, and without any trace of the nerve that traverses the middle length of the under. *Flowers* in naked *spikes* surrounding below the foliage some few branches, produced at the same time with themselves from the circumference of the stem. *Calyx* green, oblate, urceolate. *Stamens* an inch and half long, with scarlet *filaments* united for the length of the short reddish *corolla* in five distinct multifid shafts.

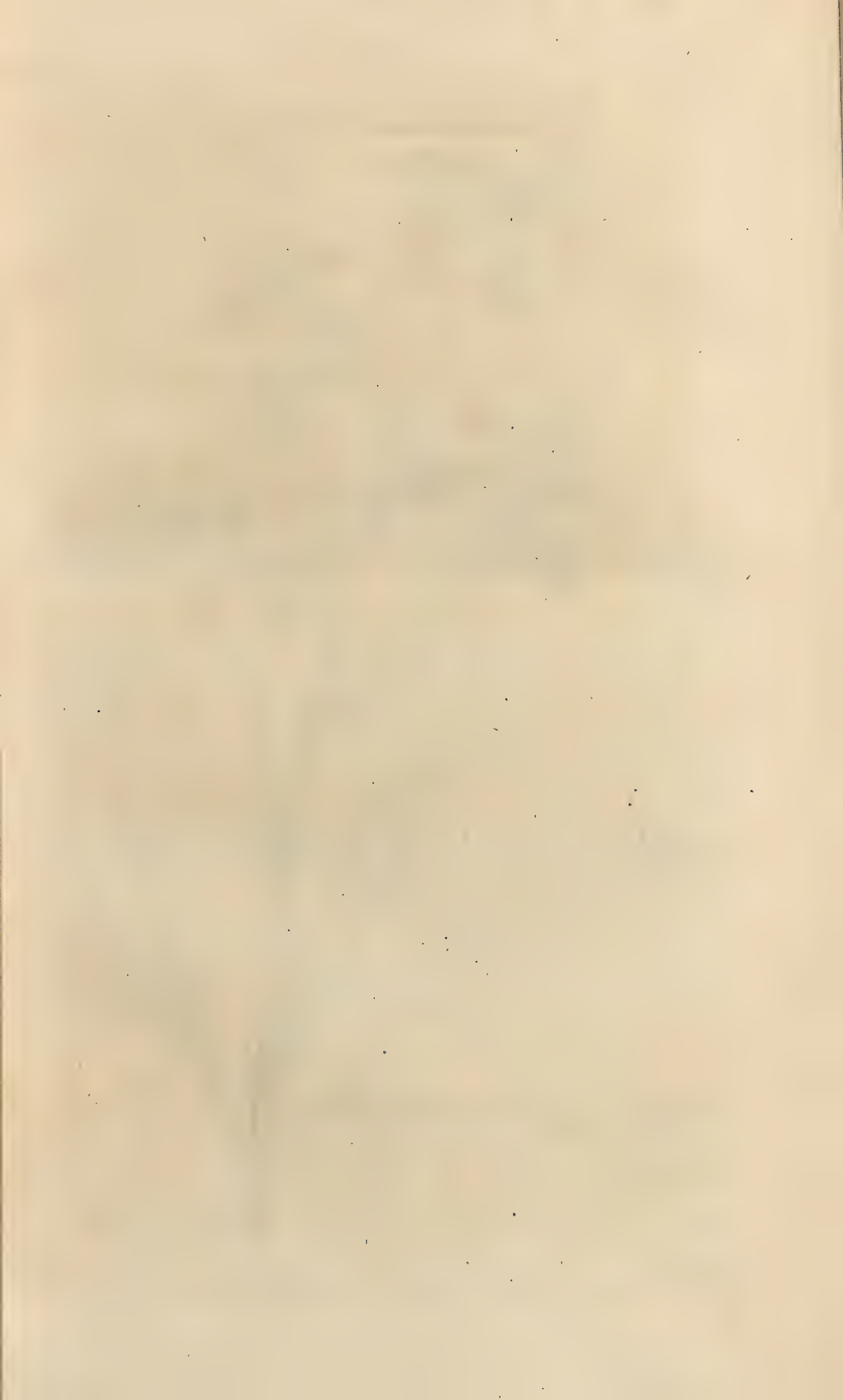
The plant belongs to the greenhouse department, and is rather tender. Thrives in a mixture of hazel-loam and peat-mould. Flowers early in the summer, and is very ornamental.

Introduced in 1803 by Mr. Peter Good.

The drawing was made at the nursery of Messrs. Whitley, Brames, and Milne, Parson's Green, Fulham.

a The corolla dissected vertically. *b* The pistil.

Note.—In the article *STYLIDIUM graminifolium*, vol. 1. fol. 90, second page, line 20, for "monadelphous" read "monopetalous."





Lyd Edwards. del.

Pub. by J. Ridgway 670. Received April 1. 1816.

South...

LEBECKIA contaminata.

Spotted-stalked Lebeckia.

DIADELPHIA DECANDRIA.

Nat. Ord. LEGUMINOSÆ. Jussieu gen. 345.

Div. V. Cor. irregularis papilionacea. Stam. 10, diadelphea. Legum. 1-loc., 2-valv. Id. l. c. 352.

LEBECKIA. Cal. 5-partitus: laciniis acutis; sinubus rotundatis. Legumen cylindricum, polyspermum. Thunb. præf. part. post. Frutices. Folia simplicia, ternata, v. rarò abruptè pinnata?

L. contaminata, glabra, ex petiolis filiformibus aphyllis remotis erectis virgata; pedunculis racemosis; carina lateribus bicalcarata.

Lebeckia contaminata. Thunb. prod. 122. Willd. sp. pl. 3. 946. Hort. Kew. ed. 2. 4. 261.

Spartium contaminatum. Linn. mant. 268. Hort. Kew. 3. 10.

Genista africana frutescens foliis linariæ angustioribus glaucis flore luteo.

Raii dendr. 104.

Frutex vimineus, suborgyalis, glaber, teres, glaucus, distantè ramosus, rami subangulosi, ex petiolis aphyllis junceis remotis sparsis virgati. Pro foliis petioli subnudi, erecti, filiformi-elongati, acuti, decrescentes, interiori facie exarati levi sulco ibidemque obsiti stipulis senis parvulis mucroniformibus per paria distantibus, basi subarticulato-constricti et cincti zonâ luteo-pallescente: ubi foliati (quales semel omninò observavimus) abruptè pinnati, foliolis bitrijugis, obcordato-oblongis, subsessilibus, subsemuncialibus. Pedunculi axillares, racemosi, pluriflori, solitarii, erecti, stricti, compresso-teretes, breviores at robustiores petiolis, purpureo-maculati, rachide florum angulato-emarginatâ, ebracteatâ, pedicellis unifloris, flexilibus, parùm longioribus calyce. Flores mutantes, violaceo-rubentes. Cal. unilabiato-inflexus, ob segmenta subinæqualia ab utrinque unâ deorsum obliquata hians suprâ sinu lato rotundo, dimidio brevior corollâ, subcoloratus, punctatus. Corollæ petala isometra, ciliolata: vexillum obovatum, reflexum, duplo latius alis: alæ à margine internâ subconniventes; carina oblonga, anticè ventricosa, acumine brevi, extus villosa, bicalcarata, producens ab intus extrorsum à latere utroque medio superiore cymbi processum cavum brevem subulato-cucullatum posticè versùs secundum latus cymbi curvato-ascendens. Fil. à germine libera, simplex et 9-fidum, usque ad basin discreta: anth. breves, ovato-acuminatæ, mucronatæ, apice et basi subpenicillatæ. Germ. filiforme, rectum, glabrum, polyspermum: stylus 2-3-plo brevior, abruptè surrectus, glaber: stig. punctum obtusum.

We find no figure of this remarkable plant, which has been known in our collections from 1788, when it was introduced by Mr. Masson from the Cape of Good Hope. It partakes, with some few more of its tribe, in the curious habit of producing a foliage of bare leaf-stalks (petioles). Those of this nature have been only known to furnish a

leaf to the petiole while seedlings, or one here and there occasionally and irregularly at a later stage of growth. On that in Mr. Griffin's conservatory at South Lambeth, from which the drawing has been taken, we found no sign of any leaf, but merely long slender petioles, resembling so many bare rushy twigs. On one of the spontaneous specimens preserved in the Banksian Herbarium we observed two abruptly pinnated leaves, the one with two pair of oblong obcordate leaflets of about half an inch in length, the other with three pair.

The genus was instituted by Thunberg, and seems principally distinguished from *SPARTIUM* by the numerously seeded cylindric legume or pod, and the broadly rounded sinuses of the calyx.

The present plant was about five feet high, vimineous, with round streaked glaucous scattered branches. On the side of the *petioles* which faced the branch, appeared generally six small teeth-like *stipules*, arranged in three pairs, equidistantly situated between the two extremities of the petiole, at the base of which was an articular constriction with a pale yellow zone. *Flowers* smaller than those of the common yellow Lupine, of a red-violet colour, not, as in the specimen observed by Linnæus, yellow; *racemes* few-flowered, terminating the solitary straight upright axillary *peduncles*, which were marked with the purple spots that have suggested the name for the species. The *corolla* is singular, as far as our experience reaches, in producing on each side of the *carina* (or boat of the flower,) from within outwards, a short hollow conic pointed spur directed backwards along the side with an ascending curve.

A greenhouse plant, apparently of easy culture; thriving most in peat-mould; flowering late in the autumn.

a Calyx. *b* Vexillum. *c* Carina. *d* One of the two alas. *e* Stamens and pistil. *f* Pistil.





TILLANDSIA xiphioides.

Buenos Ayres Tillandsia or Air-plant.

HEXANDRIA MONOGYNIA.

Nat. ord. BROMELIÆ. Jussieu gen. 49.

Div. I. Germen superum.

TILLANDSIA. Cal. 3-partitus. Cor. longior, tripartita aut tubuloso-trifida. Stam. imâ corollâ inserta. Caps. obtusè 3-gona, 3-loc. polysperma, seminibus papposis. Folia vaginantia, plerumque radicalia; flores in scapo aut caule spicati aut paniculati, singuli spathacei. Plantæ herbaceæ plurimæ parasiticæ, aliæ Agavem, aliæ Bromeliam, aliæ Aloëm habitu mentientes. Id. loc. cit. 50.

T. xiphioides, corolla tubuloso-trifida, limbi tripetaloidis laciniis reflexo-obliquatis duplo brevioribus tubo gracili subincluso spathâ.

Folia radicalia, pauca, plurifaria, patentia, ligulato-attenuata, basi semunciam v. circâ lata, subtriuncialia, canaliculato-carinata. Culmus sub 5-uncialis, strictus, totus vaginatus, teres crassitudine pennæ scriptoriæ, impressus internodiis utrinque sulco lato rotundo pro flore (v. ramo) nobiscum abortiente ad geniculos utrinque sito ab intra vaginam emittendo, terminatus spathâ bivalvi 1-florâ erectâ; folia culmi cuncta spathacea, disticha, alterna, internodiis longiora, subfuscescentia, striatula, glabra. Spatha foliis conclusa, 2 uncias cum dimidio longa, viridissima, æqualis, valvis involuto-conniventibus lanceolatis, posticè impressis cavo laterum culmi simili. Flos sessilis, erectus, fragrans, albus. Cal. inclusus, herbaceus, rigens, sesquiuncialis, foliolis lineari-attenuatis, tubum corollaceum involventibus. Cor. 4-uncialis v. parùm infrâ; tubus lineari-elongatus, rotundato-trigonus, subinclusus, crassitudine ferè pennæ corvinæ; limbus exsertus, tripetalo-partitus, totus reflexus, laciniis obovato-oblongis, obliquatis, apice rotundatis, crenulato-erosis. Stam. breviter exserta tubo; fil. phylracea, latitudine diametri capilli, basi dilatata; anth. luteæ, sagittato-lineares, imo limbo recumbentes: pollen granulato-grumosum. Germ. triquetro-pyramidatum, 3-loc.; loc. unoquoque ovulis numerosis repleto: stylus continuus, longè exsuperans stamina; stigma subclavato-continuum, hinc canaliculatum, resinâ fuscâ induratâ obductum, atque filiferum, educens filis plures arachnoideos elasticos tenaces ad antheras usque laxandos gyratim.

A genus belonging to the small order of *Bromeliæ*, or Pine-Apple tribe; and differing from *PITCAIRNIA*, in having a completely superior germen. Its numerous species are parasitic, growing upon the bare trunks and branches of trees, sometimes on the naked face of rocks. A fact which may serve to diminish the wonder of their vegetating for years when suspended elsewhere by a thread, and which has procured them the name of Air-plants, also applied to some Orchideous vegetables gifted with the same property.

Of the present singular species we have found no account. Its inflorescence, in this instance, consisted of a single sessile upright highly fragrant white *flower*, little less, when fully extended, than four inches long, issuing from a bivalved *spathe* wrapped round by the upper leaves of the short *stem*; at the two upper joints of which, in hollows on each side within the surrounding sheath, we perceived the rudiment of either a flower or branch. *Calyx* herbaceous, enclosed, an inch and half high; tube of the *corolla* slender, higher than the spathe; *limb* tripetaloid, segments obliquely reflectent, obovate-oblong, twice shorter than the tube, unevenly crenulated. But the strangest anomaly presents itself in the *stigma*, which is clavately elongated, channelled on one side, and coated by a brown hard substance like resin, from some small points in which issue several fine elastic tough threads, floating down in ringlets among the *anthers* that lie without the mouth of the tube below, and in which the *pollen* appeared to be moist, and grumously granulate. To such stigma we know of nothing analogous among vegetables. Have we been imposed upon by some extraneous substance or some casual excretion? We state the appearance with diffidence, even after the most scrupulous inspection, and shall scarcely feel secure till we meet the like in another sample.

Native of Buenos Ayres. Flowered in one of the hothouses at Castle-Hill, the seat of Lord Fortescue, in Devonshire; from whence the specimen was received by Mr. Edwards in March last. The lower foliage was copied from an uncoloured drawing made by Lord Fortescue, who had the goodness to communicate it to Mr. Edwards for that purpose; the stem and flower having been sent up by the gardener without the root-leaves. Its only culture for five years past had been, in being suspended by a string in the hothouse.

a The bivalved spathe. *b* The 3-parted calyx. *c* The tube of the corolla and one segment of the limb. *d* A stamen. *e* The pistil.





Lyd. Edwards del.

Pub. by J. Ridgway 170 Piccadilly, May 1 1840

Lin.

PENÆA squamosa.

Scaly Penæa.

TETRANDRIA MONOGYNIA.

Nat. ord. PLANTÆ INCERTÆ SEDIS. Monopetalæ germinæ supero.
Jussieu gen. 419.

PENÆA. Cal. 2-phyllus. Cor. campanulata. Stylus 4-gonus
 (v. filiformis.) Caps. 4-gona, 4-loc., 8-sperma. *Willd. sp.* 1. 626.
 Frutices sempervirentes, rigentes.

P. squamosa, foliis rhombeo-cuneiformibus carnosis. *Lin. mant.* 331.
Penæa squamosa. *Linn. sp. pl.* 1. 162. *Thunb. prod.* 30. *Willd.*
sp. pl. 1. 628. *Hort. Kew.* 3. in add. 485. *Ed.* 2. 1. 248.
Penæa tetragona. *Berg. cap.* 36; (synonymon certum, etsi nusquam
 aliubi assumptum.)

Frutex rigidus, proliferus; caulis rotundatus, cicatricibus tumidis scaber;
 rami foliosi tetraquetri, recens enati gummoso-unctuosi v. vernice diaphanâ
 obducti, sæpius rubentes. Folia opposita, decussata, sessilia, patentissima,
 plana, duplo longiora interstitiis, semuncialia v. circiter, crassa, rigida,
 rhombeo-obovata acumine lato brevi, pruinata papillis atomoideis, opaca, nervo
 medio depresso, stipulata squamulis 4? parvis dentiformibus badiis, gummi
 limbo immersis, transeuntibus faciem supinam baseos folii ab extrâ utroque
 latere. Flores 2-5, terminales, aggregati, arctati, sæpius 5 in quincuncem or-
 dinati, involucrati bracteis foliaceis, imbricato-conniventibus, pallido-virentibus,
 cuneatis, convoluto-concavis, gummoso-unctuosis, supernè ciliatis, acumine
 recurvo, majoribus quàm folia. Cor. subsesquiuncialis, tubulosa, 4-fida,
 stricta; tubus obtusè 4-gonus, pallidus, diametro pennæ corvinæ majore;
 limbus 4-partitus, cruciatus, æqualis, patens, reflexus, roseo-lucens, laciniis
 ovato-ellipticis, obtusis. Stam. limbo æqualia, ore tubi posita, laciniis al-
 terna, erecta, robusta, papillosa; fil. latius ligulata, concava, dorso convexa,
 sanguinea; anth. sublongiores, lanceolato-oblongæ, integerrimæ, adnatæ re-
 ceptaculo distincto verticali crassiusculo roseo, extrorsum carinato, introrsum
 plano loculigero atque supra basin infra loculos incumbente apice filamentis;
 loculi 2 breviores areolâ receptaculi, lineares, verticales, contigui, nigricantes,
 versùs stigma dehiscentes fissurâ mediâ longitudinali; pollen è globulis minu-
 tissimis granulatum. Pist. æquans stamina; stylus filiformis, gracilis, rectus,
 ruber; stig. atro-sanguineum, capitato-4-gonum, obsoletè 4-lobum, glabrum,
 nitidum.

A scarce and remarkable plant; native of the Cape of
 Good Hope, and belonging to a genus of so distinct a na-
 ture from that of the others of any known tribe, that the
 points by which it connects in affinity with the general
 scheme of vegetables are yet to be determined. In Jussieu's
 arrangement it stands in the reserve of unplaced genera,
 such as await either until the species wanting to combine

them with the general plan shall be discovered, or until relations not yet developed shall be unfolded in those already known.

The name has been adopted by Linnæus in commemoration of Peter Pena, the coadjutor of De Lobel, in the work entitled "*Stirpium adversaria nova*," published in 1751.

A low rigid shrub, of rather straggling growth; *stem* proliferous, prominently scarred; *branches* leafy, young ones glazed with a transparent gum-like varnish, which hardens and becomes opaque in the old. *Leaves* decussated, horizontal, flat, thick, rigid, twice as long as the intervals, obovate, rhomboidal, broadly pointed, of an opaque green; *stipules* 4? minute brown, pointed, immersed in the varnish which covers the branch, and forming a brown ridge which traverses the upper face of the foot of the leaf from without the sides. *Flowers* 2-5, terminal, aggregate, most commonly 5 standing in the order of a quincunx, and forming a close oblong fascicle, enveloped by foliaceous imbricated *bractes* larger than the leaves, pale green, varnished, ciliate upwards, with a recurved point. *Corolla* an inch or more in length; *tube* obtusely quadrangular; *limb* 4-parted, cruciate, of a deep glossy rose-colour, three times shorter than the tube, obtuse. *Stamens* equal to the limb, blood-red, upright; *anthers* upright, inserted at the inner flat front of their receptacle nearly one third above the base under the *cells*, which are adnate, vertical, parallel, contiguous, dark brown, somewhat shorter than the plain of the receptacle, opening lengthways towards the *stigma*, against which they incline on parting with the pollen.

A greenhouse plant, difficult to preserve, and not easily multiplied. Cultivated in a mixture of hazel loam and peat mould. Introduced by Mr. Masson in 1787.

The drawing was made in March, at the nursery of Messrs. Lee and Kennedy, Hammersmith, a source from which we have long received a most liberal and unreserved supply of rare plants of the greatest use to our botanical pursuits.

a Corolla dissected vertically, *b* Pistil.



Lyd. Edwards. del.

Pub. by J. Ridgway 170 Piccadilly May 1. 1816.

Smith

BOUVARDIA triphylla.

Three-leaved Bouvardia.

TETRANDRIA MONOGYNIA.

Nat. ord. RUBIACEÆ. Jussieu gen. 196.

BOUVARDIA. Cal. (superus) 4-phyllus, dentibus quibusdam interjectis. Cor. tubulosa. Antheræ inclusæ. Caps. bipartibilis, polysperma. Sem. marginata. Hort. Kew. ed. 2. 1. 245.

B. triphylla. Salisb. paradis. 88.

Bouvardia triphylla. Hort. Kew. ed. 2. 1. 245.

Houstonia coccinea. Andrews's reposit. 106. Persoon syn. 1. 125.

Ixora americana. Jacq. hort. schænbr. 3. 4. t. 257; (nec Linnæi.)

Ixora ternifolia. Cavanill. ic. 4. 3. t. 305. Recens. pl. in reposit. botan. depict. 37. Persoon syn. 1. 130.

Caules plures suffruticosi erecti, parùm ramosi, teretes, villosuli, sesquipedales, pennam columbinam crassi. Folia terna, breviter petiolata, lanceolata, acuta, integerrima, utrinque et ad oras villis brevissimis scabra, patentissima v. reflexa, unam alteramve unciam longa. Stipulæ subulatæ, erectæ, ternæ, cum foliis alternantes. Pedunculi terminales, plussculi, erecti, 5-flori, etiam semel dichotomi, scabri, semunciam v. unciam longi. Flores inodori, erecti. Cal. et germen hirta. Cor. coccinea, foris villosula, uncialis. Anth. flavidæ. Cal. 4-phyllus, superus, persistens, foliolis lanceolatis acuminatis patentissimis. Cor. 1-petala; tubus (tetragono-) cylindricus, longissimus, erectus. Limbi 4-fidi et brevissimi laciniis ovatis, obtusis, patentissimis. Fil. subulata, tota fere quanta tubo adnata. Germ. inferum, turbinatum cum vertice ultrà calycis ortum prominente subbifido. Stylus subulatus, erectus, tubo corollæ brevior. Stigma obtusum, oblongum. Jacq. loc. cit.

When we turn to the description of the *IXORA americana* we are at a loss to account for Jacquin's having conceived our plant to belong to that species. *IXORA americana* is stated to be a tree, with leaves that have long petioles, and a flower in which the tube is shorter than in any other of the genus: all of them features which have no existence here. We since find our plant intruded upon *HOUSTONIA*, from which, as well as *IXORA*, it has been judiciously removed by Mr. R. A. Salisbury, and made the foundation of a genus, called after Dr. Charles Bouvard; a former superintendent, and one of the earliest as well as most considerable benefactors of that celebrated national establishment, the botanic garden at Paris.

The plant is become very general in our collections. It is suffrutescent and perennial, from one to two feet high,

corymbosely branched, with a round *stem*, covered with a very pale smooth bark. *Leaves* usually in threes, obovately lanceolate, smooth except at the edge and middle nerve; *stipules* 3, sheathing, alternate with the 3 leaves. *Flowers* bearing some resemblance to those of the Trumpet-honeysuckle (*LONICERA sempervirens*), of an orange-scarlet colour, rather below an inch in length, and thicker than the diameter of a crow-quill, upright, straight, scentless, terminating the branches in loosely corymbose panicles; *peduncles* frequently trichotomous, and three-flowered; *pedicles* shorter than corolla. *Tube* somewhat quadrangular; *limb* many times shorter, obtuse. Mr. Salisbury, from whom we have borrowed nearly the whole of what we have said of the character, mentions two varieties, the one with narrow, the other with broad leaves.

Native of Mexico. Introduced into the Madrid gardens in 1791; into those of England by Sir Joseph Banks in 1794. A hardy greenhouse plant of easy culture. Propagated by cuttings. Flowers from July to October.

The drawing was made from the nursery of Messrs. Kennedy and Lee, at Hammersmith.

a Calyx. b Corolla dissected vertically. c Pistil.



Sgt. Edwards del.

Pub by J. Ridgway 170 Piccadilly May 1. 1916.

Smith

OTHONNA abrotanifolia.

Southernwood-leaved African Ragwort.

SYNGENESIA POLYGAMIA NECESSARIA.

Nat. ord. CORYMBIFERÆ. Jussieu gen. 177.

Div. II. Receptaculum nudum. Semen papposum. Flores radiati.

OTHONNA. Flores radiati, flosculis masculis (androgynis sterilibus) ligulis fœmineis. Cal. 1-phyllus subcylindricus aut patens, apice 8-14-dentatus aut 8-14-fidus. Pappus pilosus aut subnullus. Receptaculum quandòque (alveolato-) villosum. Species quædam suffruticosæ; folia simplicia aut pinnata. Id. loc. cit. 180, 181, 182.

Div. foliis incisis pinnatisve.

O. abrotanifolia, foliis multifido-pinnatis linearibus, caulis geniculis villosis. Linn. sp. pl. 2. 1310.

Othonna abrotanifolia. Mill. dict. ed. 8. n. 4. Thunb. prod. 168. Hort. Kew. 3. 277. ed. 2. 5. 176. Willd. sp. pl. 3. 2375; (excl. synonym. Seb. mus. quod *O. pectinata*.)

Cineraria abrotanifolia. Berg. cap. 292.

Jacobæa africana frutescens, foliis abrotani s. crithmi, major et minor. Volckam. norib. 225. t. 225.

(β) foliis laxioribus, brevioribus, pinnis latioribus, planioribus. Ex specim. in Herb. Banks.

Asteroplatycarpus africana frutescens, crithmi marini foliis. Comm. hort. 2. 63. t. 32.

Suffrutex proliferus; rami ascendentes, teretes, undique confertim foliati, gremio folioso apicis (undè pedunculus) densè lanati. Folia saturatè viridia, sparsa, multifaria, conferta et basi imbricato-approximata, patentia, carnosæ, crassæ, lineari-pinnatæ cum impari, glabræ, foliolis decurrentibus, distantibus, alternis v. oppositis, filiformibus, acutis cum sulco suprâ; petiolus communis foliolis similis sublatior tamen et utrinque sulcatus. Pedunculi terminales, solitarii, erecti, teretes, glabri, 1-3-unciales, 1-flori. Flos saturatius sulphureo-lutescens, sesquiunam ad 2 uncias transversus v. magis. Cal. herbaceus, ex globoso-cylindrico patens, medium ultra multi-(13-) fidus, æqualis, acutus. Radius recurvo-expansus, ligulis totidem ac segmenta calyci, laminâ lineari-oblongâ, tridenticulatâ, longitudine disci transversa, revolutomarcascente, tubo gracili deorsum ampliato: discus numerosus, æqualis calyci, flosculorum limbo urceolato-campanato, semi5fido, laciniis ovato-acuminatis; tubo ligularum simili. Anth. 5-dentata, æquans limbum, flava. Stigmata 2, revoluta-divergentia. Germ. pappo pluriès brevius, cylindricum, oblongum: pappus copiosissimus, sericeus sub lente plumosus, sursum et deorsum diffusus, mollissimus. Recept. alveolato-setaceum, alveolis membranoso-marginatis, setoso-dentatis, à profundis in periphæriâ decrescentibus versum centrum.

A suffrutescent species, much cultivated in the green-houses about London, on account of its early flowering, easy culture and propagation. A narrow foliage clothes the branches to the top, in the manner of that of the common Southernwood, which it resembles in form; each *leaf* is from an inch to an inch and half long, fleshy, unequally linear-pinnate; *petiole* furrowed above and beneath; *leaflets* decurrent, 11-13, filiform, pointed, furrowed above only, generally opposite or nearly so; sometimes alternate, lowermost very small, three uppermost placed tridentways. *Stem* round, proliferous; branches upright, producing a solitary smooth round one-flowered bracteless *peduncle* from an apex tufted with thick white wool, forming the centre of the terminal leaves. *Flowers* of a uniform pale golden yellow, from an inch and half to two over. *Receptacle* alveolate or honeycombed, edge of the *cells* membranous, with fine bristle-like teeth, gradually higher as the depth of the cells diminishes towards the centre.

In bloom from January to March. Native of the Cape of Good Hope. Cultivated at Hampton Court Gardens in 1692.

We are acquainted with two varieties: the one with a broader flatter foliage we take to be Commelin's plant. The present is that of Volckamer, whose figure of it, tho' coarse, is very characteristic. Samples of both are preserved in the Banksian Herbarium.

The drawing was made at Messrs. Colville's nursery, King's Road, Chelsea.

a Calyx, dissected vertically, showing the bristly-alveolated receptacle, deprived of the florets. *b* A floret of the disk and germen. *c* A floret of the ray and germen.



Edw. Edwards del.

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Smith. Sc.

CASSIA ligustrina.

Privet-leaved Cassia.

DECANDRIA MONOGYNIA.

Nat. Ord. LEGUMINOSÆ. Jussieu gen. 345.

Div. I. Cor. regularis. Legumen multiloculare, sæpiùs bivalve, dissepimentis transversis, loculis monospermis. Stamina distincta. *Id. loc. cit.*CASSIA. *Suprà vol. 1. fol. 83.**C. ligustrina*, foliolis septemjugis, lanceolatis, extimis minoribus, glandulâ supra basin petiolorum. *Linn. sp. pl. 1. 541.**Cassia ligustrina*. *Hort. Kew. 2. 52. ed. 2. 3. 28. Pursh amer. sept. 1. 306. Willd. sp. pl. 2. 523.**C. bahamensis*. *Mill. dict. ed. 8. n. 12.**C. bahamensis*, pinnis foliorum mucronatis angustis, calyce floris non reflexo. *Mart. cent. 21; cum tab.**Senna ligustri folio*. *Dill. elth. 350. tab. 259, fig. 338; (exclusâ figurâ fructûs pertinente ad diversam speciem et malè desumptâ tabulis Plumierianis.)*

Frutex orgyalis; caulis teres ramosus foliosus; rami striati, ascendentes, sparsi, virides, conspersi rarâ lanugine. Folia numerosa, multifariâ sparsa, 5-8-juga, sæpiùs 7-juga, 5-9-uncialia, lætè virentia; petiolus villosiusculus, supra articulum baseos tumidus & notatus glandulâ parvâ tumori insidente anticè; foliola distantia, brevissimè petiolata, sesqui-3-uncialia, lanceolata, basi et margine minutè villosa, cæterum glaberrima, interiora minora: stipulæ geminæ, parvæ, herbacæ, subulatæ, recurvæ, villosæ, caducæ. Flores subpaniculato-terminales, paniculæ è corymbis plurifloris solitariis in axillis foliorum ramos terminantium & sensim in bracteas decrescentium: pedunculi erecti, villosi, pedicellis fastigiantibus, flore brevioribus, singulis suffultis bracteâ propriâ herbacæ ovatâ acutâ concavâ. Cal. subherbaceus, lanuginosus, pluriès minor corollâ, foliolis rotundatis, concavis, non reflexis, 2 intimis tenerioribus submajoribus. Cor. flava, sine maculâ, obsoletius nervosa; pet. summo obcordato latiori reliquis obovatis, 2 imis minoribus: omnibus unguis brevissimus. Anth. fermè occidentalis (*suprà fol. 83.*) appendicibus verò minùs conspicuis, de infernè supernè versùs decrescentes per paria, flavo-fulvescentes. Pist. assurgens. Germ. pedicellatum, longum, teres, villosum; stylus parùm gracilior, brevis, surrectus, glaber: stigma punctum cum cavo obtuso, intrò versum, ciliatum. Legum. compressum, lineare, polyspermum, 3-unciale latitudine ferè $\frac{1}{4}$ partis uncia, fuscum, cartilagineo-marginatum, acutum.

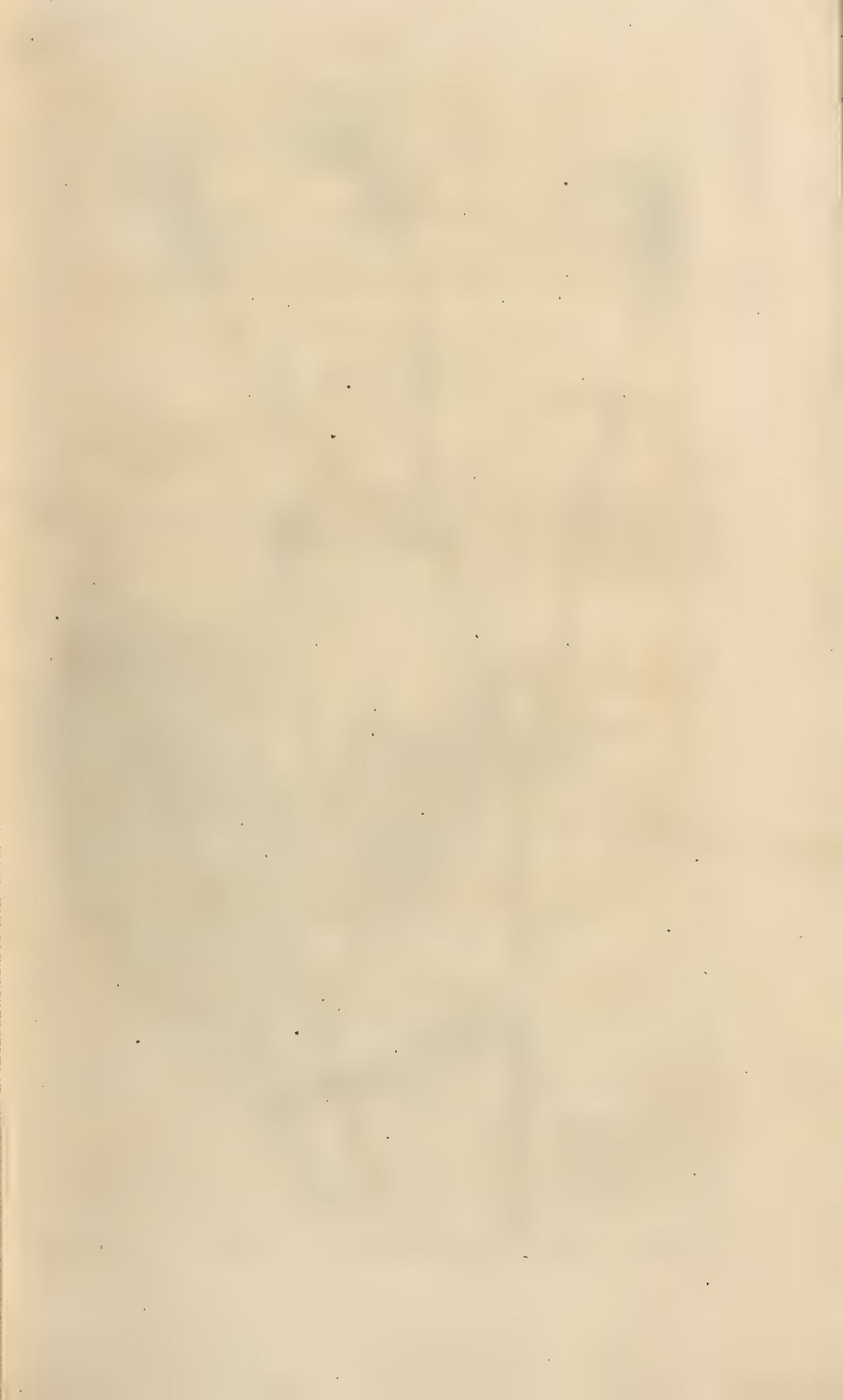
A shrub which grows naturally in Virginia, the Bahama Islands, and Jamaica. Introduced by Mr. Mark Catesby about the year 1726. It requires to be kept in the bark-bed of the hothouse; where, although it flowers pretty freely, it has not been known to seed with us. In Dil-

lenius's work, we find a sumptuous engraving of the species, taken from a plant that flowered in Dr. Sherard's celebrated garden at Eltham; but the figure of the fruit which accompanies it, has been borrowed from Plumier's drawings, and evidently belongs to a distinct species. Miller's *CASSIA ligustrina* is another species; but his *bahamensis* the same with the present.

It is said to attain 7 or 8 feet in height; *stems* sometimes several, at most about the thickness of a finger, round, surrounded by green ascendent somewhat grooved branches, thinly sprinkled with a short fine down towards the inflorescence; *leaves* numerous, set round the branches in all directions, 5-9 inches long, of a clear lively green, drooping at sunset, pointing upwards at sunrise, horizontal about noon; *petiole* downy, considerably enlarged over the joint at the base, and bearing a small gland in front of the tumor above; *leaflets* 5-8-, but oftener 7-paired, from an inch and a half to 3 inches long, lanceolate, minutely villous at the edge and base, smooth: *stipules* 2, lateral, small, recurved, subulate, herbaceous, villous, deciduous. *Inflorescence* a leafy upright panicle formed of several 3- or more-flowered corymbs, *lowermost* issuing separately from the axils of the upper leaves, which gradually decrease to mere bractes; *uppermost* terminal, and sometimes dichotomous. *Calyx* subherbaceous, villous, not reflectent. *Corolla* deep yellow, without spots, and with nerves less prominently marked than is usual in the genus; upper *petal* obcordate, broader, the rest obovate, the two lower smallest. *Stamens* nearly as in *CASSIA occidentalis* of the 83d article of this work.

There is a variety with a smaller foliage. The drawing was made from a plant which flowered in great perfection last autumn in the collection of Mr. John Hall, at Notting-hill.

a The calyx. b The stamens and pistil. c The pistil detached.





Syl. Edwards' Del. Pub. by J. Ridgway 170. Pennell May 1. 1816.

Smith Sculp.

CACALIA bicolor.

Bicolor Cacalia.

SYNGENESIA POLYGAMIA ÆQUALIS.

Nat. Ord. CORYMBIFERÆ. Jussieu gen. 177.

CACALIA. Suprà fol. 101.

Div. Herbaceæ.

C. bicolor, caule herbaceo ramoso, foliis lanceolatis glabris dentatis: caulinis (*superioribus*) amplexicaulibus; rameis (*inferioribus*) petiolatis. Willd. sp. pl. 3. 1731.

Cacalia bicolor. Roxburgh MSS. corom. cum tab. pict. ined. Salisb. parad. 25. Hort. Kew. ed. 2. 4. 499.

Perennis, bipedalis: caulis ramosus, glaber, striatus, fusco-purpurascens, rami subvillosi, erecto-patentes, florigeri. Folia decrescentia, glabriuscula, subtus ferè semper latè purpurea; inferiora petiolata, lanceolata, laxius nec æqualitèr inciso-serrata, summa ramis supposita amplexicaulia sublyratosagittata. Pedunculi caulis ramorumque terminales, rari, distantes, fastigiantes, villasiusculi, striati, uniflori, consiti bracteis nonnullis vagis membranosis subulatis, summis imo calyci contiguus patentissimis. Flores puniceo crocati, ferè unciam alti. Cal. cylindricus, oblongus, apicibus purpureis acutis. Flosculi numerosi, excedentes calycem, subnutantes v. curvati versùs periphæriam floris. Stigmata divaricato-exserta. Cætera fermè ac in *C. ovali* folii superioris 101.

This fine coloured species, according to Dr. Roxburgh, was received at the botanic garden in Calcutta, from the Moluccas, in 1790; and was introduced by Sir Joseph Banks into this country in 1799.

An herbaceous perennial plant, in our specimen about two feet high; stem dark-purple, somewhat angular, smooth, branched. Leaves scarcely succulent, usually of a fine bright purple at the under side, nearly smooth, or with a slight scattered pubescence on the middle nerve; lower ones petioled, lanceolate, deeply distantly and unequally serrate; upper stem clasping, lyrate sagittate. Flowers between crimson and orange colour, nearly an inch long, terminating the stem and branches in a loose few-flowered panicle; peduncles distant, striate, somewhat villous, growing out into a loosely scattered corymb, beset with a few irregular distant subulate membranous bractes, the upper ones of which are patent, and surround the base

of the calyx to which they are contiguous. *Calyx* cylindrical, oblong, with purple points. *Florets* numerous, overtopping the calyx, bending towards the periphery of the flower. *Stigmas* divaricately protruded. In the other points it agrees very nearly with *CACALIA ovalis* recorded in the 101st article of this work.

Requires to be cultivated in the hothouse, where it flowers in the autumn.

The drawing was made at the nursery of Messrs. Whitley, Brames, and Milne, King's Road, Fulham. It had been raised from East Indian seed.

a The calyx and bractes dissected vertically; showing the receptacle bared of the florets, *b* A floret and its germen.

Note.—Fol. 99. p. 1. bottom line. For “Clusius notices its having been,” &c. read “Clusius notices it as having been,” &c.





Lyd. Edwards. del.

Pub. by J. Ridgway 170 Piccadilly Aug. 1. 1816.

Smith. Sc.

CYNANCHUM pilosum.

Hairy Cynanchum.

PENTANDRIA DIGYNIA.

Nat. Ord. ASCLEPIADEÆ. Cal. 5-divisus, persistens. Cor. monopetala, hypogyna, regularis, decidua. Stam. epipetala, laciniis limbi alternantia. Anth. biloculares. Pollen ad dehiscentiam antherarum coalescens, in massas numero loculorum. Germ. 2. Styli 2, arcuè approximati. Stigma ambobus commune, dilatatum, pentagonum, angulis corpusculiferis. Folliculi 2, altero, nunc abortiente. Placenta suturæ, intus applicata, demum libera. Sem. numerosa, imbricata, pendula. Albumen tenue.

Div. ASCLEPIADEÆ VERÆ. Massæ Pollinis 10, læves, per paria (diversis antheris pertinentia), affixæ stigmatis corpusculis, sulco longitudinali bipartibilibus. Fil. connata, extus sæpius appendiculata.

CYNANCHUM. Cor. subrotata, 5-partita. Corona staminea monophylla, 5-20-loba, dum 5-fida lobis antheris oppositis. Anth. membranâ terminatæ. Massæ pollinis ventricosæ, pendulæ. Stigma apiculatum. Folliculi læves. Sem. comosa. Plantæ perennes v. suffrutices, ut plurimum volubiles (et lactescentes.) Folia opposita. Umbellæ interpetiolares. Patria varia a gradû 59° lat. bor.! usque ad 32^m lat. austr. Brown Asclep. in Wern. trans. 1. 19, 21, 43.

Div. III. Corona staminea tubulosa, columnam includens, ore 5-10-fido, laciniis carinisve interioribus nullis. Massa pollinis apice sæpius affixæ. Stigma apiculo bifido. Caulis volubilis. Folia subcordata. Brown l. c. 46.

C. pilosum, foliis ovatis acutiusculis calycibusque pilosis, corona 10-fida longitudine corollæ. Brown l. c. et in Hort. Kew. ed. 2. 2. 77.

Periploca africana. Linn. sp. pl. 1. 309. Mill. dict. ed. 8. n. 2. Jacq. misc. 1. 13. t. 1. f. 3. Thunb. prod. 47. Hort. Kew. 1. 301. Andrews's reposit. 557. Willd. sp. pl. 1. 1251.

Cynanchum caule volubili ramoso, foliis subovatis cum acumine. Hort. cliff. 79.

Apocynum scandens africanum, vineæ pervinæ foliis, subincanum. Comm. rar. 18. t. 18.

A. scandens africanum, convolvuli minoris folio, et caule hirsuto. Pluk. alm. 37. t. 137. fig. 4.

A. indicum minus, nummulariæ foliis. Moris. hist. 3. 611. sect. 15. t. 3. f. 62.

Suffrutex villosa-canescens, 1-3-pedalis: caules plures, graciles, elastico-rigentes, lactescentes, hispidius villosi, distantè foliati; folia perfoliato-petiolata, infra unciam longa semunciam ferè lata, petiolis brevibus: pedunculi alterni, solitarii, rari, foliis subæquales, corymbo plus minus 5-12-florea terminati. Flores suaveolentes, subsemunciales; cor. stellato-divaricata, fuscescens, laciniis linearibus, spiralitèr contortis, obtusis, distantibus; cor. stam. alba.

A plant from the Cape of Good Hope, long known in our green-houses; and more interesting, from the singularity of its appearance, structure, and colour of the blossom, than in point of ornament.

The species is a milky suffrutescent slender twining evergreen, covered with a short close hoary pubescence; *stems* several, filiform, elastic, and tough, from one to three feet high, more roughly pubescent than the foliage, winding one round the other in a wreath when no support is by. *Leaves* in distant pairs, oblong-ovate and subcordate, short-pointed, under an inch in length, and rather above the half of one in breadth, villous on both sides; *petioles* perfoliate, short, firm. *Peduncles* lateral, alternate, solitary, few, about the length of the leaves, terminated by a short closish corymb of from about 5-12 small upright sweet-scented brown and white blossoms. *Calyx* very small, 5-cleft, pointed, patent, persistent. *Corolla* of a faded liver-colour, of one piece, 5-parted, stellate, *segments* widely separated, narrow, linear, twisted, obtuse; *stamineous crown* a white narrow campanulate pentagonal tube, notched at the brim, of the same height as the *column of fructification*, to the angles of which it is cemented at the base, and the whole of which it encloses and guards, in the way of the paper or glass bells, in use to prevent candles from flaring. *Filaments* united cylindrically: *anthers* terminated by a pointed membrane. *Germens* 2, halved-ovate lengthways; *styles* 2 subulate; *stigma* common to both, large pentagonal, bifid at the apex; furnished at each angle of the 5 faces with a *corpuscle* and two filiform processes, each suspending from its apex a small ventricose yellow *pollen-mass*, separately attracted from a loculament of different bilocular anthers.

The species contained in the Linnean CYNANCHUM have been considerably reduced by Mr. Brown in his late arrangement of his order of *Asclepiadeæ*. But even under this reduction he thinks it still resolvable into six separate genera, the characters of which he has marked out in the form of six heads of as many sections.

Cultivated by Miller in 1726.

The drawing was made at the nursery of Messrs. Whitley, Brames, and Milne, King's Road, Fulham.

a The calyx. *b* A detached flower. *c* The column of fructification, entire.



Lyd Edwards, del.

Abby J. Ridgway 170, Piccadilly May 1. 1816.

Smith. sc

CAMELLIA japonica. i.

Lady Hume's Blush Camellia.

MONADELPHIA POLYANDRIA.

Nat. Ord. THEACEÆ. *Mirbel in nouv. Bulletin. 3. 382.*AURANTIA. *Jussieu gen. 262.*Div. III. Fructus polyspermus capsularis. *Folia non punctata.*
Genera *Aurantiis & Meliis affinia.*CAMELLIA. *Suprà vol. 1. fol. 12.**C. japonica.* *Suprà vol. 1. fol. 22.*(i) *Blush Camellia.* *Hort. Kew. ed. 2. 4. 235. Andrews's reposit. 660.*
fig. 2.

For an account of the species we refer to the twenty-second article of this work. The present is one of its more rare and ornamental varieties; and we believe was introduced some few years back from China, by the late Lady Amelia Hume. It varies in itself from a deeper to a paler flesh-colour. The drawing has been made from a plant in Mr. Knight's nursery in the King's Road, Chelsea.

The genera, which had been distributed by Jussieu in three divisions under his order *Aurantia* or the Orange-tribe, in which *CAMELLIA* was included, now form four distinct orders. Of these, that of the *Theaceæ* contains only *THEA* and *CAMELLIA*, well-suited congeners in a natural arrangement, but separated by Linnæus in compliance with the rule of his system, which establishes the coalescence of the filaments into one or more parcels, a fundamental difference in one set of classes from another set, where that character is not present, without regard to natural affinity. This rule seems to us to trench more repeatedly on the natural relations of species, and to be compensated by fewer corresponding advantages than any other devised by the genius of the author of that professedly artificial, but in great part natural as well as profoundly ingenious and most useful system. In respect however to *THEA* and *CAMELLIA*, neither of these characters is so completely marked in one or the other, but that both genera might rank under the same title, without any essential departure from the above rule. But is the reduction of two or

more universally known and long established, altho' perhaps unnecessarily narrow genera, into one, such an advantage even in a natural method as repays the inconvenience which infallibly accompanies innovation? In the most natural system, genera, as well as larger divisions of all denominations, are mere devices in aid of science; and have no other standard of limitation than the general assent accorded to the experience of their use in the management of a collective mass, unwieldy for the purposes of knowledge without them. Nor can any other divisions be formed when we admit a creation of distinct species confining throughout by equable transitions.



Syd. Edwards. del.

Det. by J. Ridgway 170 Piccadilly June 1. 1846.

Smith sc.

ARBUTUS Andrachne.

Andrachne, or the Oriental Strawberry Tree.

DECANDRIA MONOGYNIA.

Nat. ord. ERICÆ (recentiùs ERICEÆ.) Jussieu gen. 159.

Div. I. Germen superum.

ARBUTUS. Cal. 1-phyllus, persistens, minimus 5-partitus. Cor. 1-petala, ovata, limbo parvo 5-fido revoluto. Stam. (hypogyna) non exserta. Stylus 1. Stigma 1. Bacca 5-locularis, loculis poly-v. uni-spermis. Frutices aut suffrutices; foliis alterna; flores axillares aut terminales, subracemosi. Receptaculum germinis 10-punctatum. Bacca A. Unedonis granulata Fragarioides. Jussieu gen. 160.

A. *Andrachne*, caule arboreo foliis ovatis integris serratisque paniculis pubescentibus erectis, baccis polyspermis. Hort. Kew. ed. 2. 3. 56. Arbutus Andrachne. Linn. sp. pl. 1. 566. Mill. dict. ed. 8. n. 2. Hort. Kew. 2. 72. Willd. sp. pl. 2. 617. Lamarck encyc. 1. 226. Duhamel arb. ed. nov. 1. 76. t. 22. Fl. græc. prod. 1. 274. Marsch. Bieb. taur. cauc. 1. 112.

Andrachne frutescens, spica erecta, foliis ovatis integerrimis et serratis. Ehret in philosoph. transact. 57. 114. t. 6.

Andrachne Theophrasti. Clus. hist. 1. 48.

Arbuscula sempervirens, suborgyalis. Caulis teres assurgentèr ramosus, cortice lævi, epidermide rubrâ deciduâ. Folia ramos novellos sparsim ambientia, proxima, coriacea, petiolata, elliptica, 3-4 uncias longa, sessu unam ad ultrâ 2 usque lata, integerrima v. supernè obtusè subdentata, modò retusa, suprâ glabra, pallentia infrâ efflorescentiâ cartilagineâ glabrâ albidâ lineamentis reticulatis subtilitèr inscriptâ: petiolus ruber, 2-3-plo brevior. Racemi finientes ramos, numerosiflori, paniculato-compositi, nuntantes, divaricati, viscoso-villosi; racemuli ex foliis sensim in bracteas decrescentibus, summus erectus, continuus pedunculi communis, laterales plures alterni, reflexo-patentes, 20-30-flori; pedicelli uniflori, solitarii, sparsi, subsecundo-inflexi, proximi, filiformes, sensim decrescentes, suffulti bracteolâ ovatâ, acutâ, concavâ, rubidâ, villosâ. Cal. parvulus, rotatus, pubescens, segmentis ovatis cum acuminulo. Cor. ovato-globosâ, chloroleuca, magnitudine vix pisi minoris, extus nuda; intus tota quanta pilosa, basi ampliata atque bullis 10 diaphanis externè insignita; limbi lacinæ transversè latiores revolutæ. Stam. duplo breviora: fil. alternantia scrobiculis 10 internis nectariferis fundi, ventricoso-subulata, pilosa, incurvo-conniventia, immediatè hypogyna, pediculo brevi attenuato sub tumore; anth. subserrugineæ, oblongo-ovata, compressæ, annexæ à summo dorso inter cornua, loculi sacciformes intus rimâ longitudinali obliquatâ dehiscentes, utrique aristâ continuâ ponè dorsum reflexâ indeque incurvo-assurgente terminati. Germ. hirsutum, infrâ annulo glanduloso crasso 10-angulato castaneo-fusco intra filamenta posito cinctum; stylus corollæ æqualis, columellaris, teres, strictus, virens; stigma papilloso-capitatum, virens. (Bacca fragarioides, sphaerica.)

Guided by his view of the original specimen, the Chevalier de Lamarck has separated the *Arbutus folio non ser-*

rato of Tournefort by the name of *integrifolia*, from the *ARBUTUS Andrachne* of Linnæus, of which it had previously been the undisputed synonym. The main distinctions he relies on are, that the leaf of *integrifolia* is rounded at the end with a short central point, that the bractes are longer than the flowers, which have exceedingly short pedicles, and that the plant had been found only on Mount Ida, in Candia; circumstances that do not belong to the plant before us, and which may really prove to be solid marks of its specific difference. But M. de Lamarck has, besides this, detached from *Andrachne* the synonym adduced by Linnæus from Clusius's work, and transferred it to *integrifolia*. In this he seems to err in the face of his own showing, for none of the features peculiar to his plant are to be perceived either in the figure or description found in that work; both which, as far as they go, coincide with the Linnean species. Professor de Jussieu is persuaded that he remembers formerly to have seen Tournefort's plant in the Jardin du Roi at Paris, from whence, however, he says it has long since disappeared.

Andrachne is native of most parts of the Levant. M. Marschall von Bieberstein, in the *Flora taurico-caucasica*, says that he found it growing on the sides of rocks about most of the maritime villages of the Crimea; where it varies with a somewhat villous subserrate foliage, and with one that is perfectly smooth and entire, and is called by the inhabitants *Jaban-Dephne* or Wild Bay-tree.

A handsome evergreen shrub, growing sometimes near 8 feet high, with a stem 3 inches in diameter. The bark quite smooth, and in the winter of a fine red colour; in the spring the epidermis peels off spontaneously. The berries, which do not ripen here, are said to be round, like those of *A. Unedo*, or Common Strawberry-tree, and about the size of a Raspberry; the germen, however, is pubescent, which is not the case in *Unedo*. The branches are irregular. It survives our common winters in the open air when the plant is become woody; but should be raised under cover, where it must remain at least four or five years before it is planted in the open border; and then ought to be placed in a warm sheltered position, and dry soil.

Cultivated by Dr. Sherard in 1724. The drawing was made in April, at Messrs. Whitley, Brames, and Milne's, King's Road, Fulham.

a Calyx. *b* Corolla dissected vertically. *c* Pistil.



Lyd. Edwards. del.

Pub. by J. Ridgway 170 Piccadilly 3rd



PLUMERIA acuminata.

White East-Indian Plumeria.

PENTANDRIA MONOGYNIA.

Nat. ord. APOCYNÆ. Jussieu gen. 145.

Div. I. Germen duplex. Fructus bifollicularis. Semina non papposa.

PLUMERIA: Cal. parvus obtusè 5-fidus. Cor. (contorta) infundibuliformis, tubo longo sensim ampliato, limbo obtusè 5-partito patente (erecto in *P. pudicâ*.) Antheræ conniventes exsertæ. Stylus vix ullus; stigma bifidum. Folliculi deorsum flexi, longi, ventricosi; semina margine membranaceo alata. Arbores aut arbusculæ; folia alterna integra magna; flores subcorymbosi terminales, plures abortivi. Jussieu gen. 145.

P. acuminata, foliis lanceolatis planis acuminatis. Dryander in Hort.

Kew. ed. 2. 2. 70.

Plumeria obtusa. Loureiro cochinch. 117; (nec aliorum.)

Flos convolutus. Malaicè Bonga gulong tsjutsju. Rumph. amb. 4. 85.

t. 38.

Arbor mediocris; rami rari, dispersè divaricati, elongati, crassi cum facie tumido-succulentâ, lactescentes, cinereo-virentes, fragiles, glabri, cicatrizati, apice comâ parçâ plurifariâ foliorum terminati indèque florigeri. Folia obovato-lanceolata, longius in petiolum attenuata, 9-14-unciales latitudine subquadriunciali, costata nervis obliquis parùm dissitis apice flexis & in lineam continuam nonnihil cis marginem confluentibus. Flores laxius cymosi, assurgentes, odoratissimi; pedunculus terminalis, teres, robustus, nudus, supernè pluriès divisus, virens, pedicelli 1-flori. Cal. exiguus, obtusus, herbaceus. Cor. candida, disco flavescens, hypocrateriformis; limbus contorto-rotatus paulominus unciis 3 transversus, laciniis distantibus, sublineari-oblongis, obtusis; tubus parùm brevior, intus ad stamina usque pilosus. Stam. tubo circumposita propè fundum; anth. sessiles.

The only species of the genus yet recorded from the East Indies, the rest being all from the West Indian islands and South American continent. We find it in no systematic enumeration of vegetables, except the last edition of the Hortus Kewensis. In India it is a universal and constant ornament of the garden; in China and Cochin-China likewise. In Batavia the chinese colonists use the flowers in confectionary; the females, as an ornament in their hair.

A middle-sized tree, with a stem growing to about four feet high before it branches, measuring sometimes a foot in

diameter about the root; branches straggling, long, forked, naked, thick, brittle, lactescent, smooth, scarred, full of pith, with the swollen appearance peculiar to the genus, ash-green-coloured, terminating in a shortly tapered obtuse point, surrounded by the foliage, from the centre of which the inflorescence is produced. *Leaves* deciduous, multifarious, near, spreading, obovately lanceolate, acuminate, 10-14 inches long, 3-4 broad, petiolate, of a bright deep-green, tapered towards the petiole, many-ribbed, nerves from each side the rachis, opposite, bending forwards at the top where they inosculate and form a continuous line below the margin of the leaf. *Flowers* large, extremely fragrant, disposed in a loose many-flowered assurgent cyme, slow in evolving, and lasting in beauty for several months together: *peduncle* robust, round, fleshy, green. *Calyx* very small, obtuse. *Corolla* contorted, hypocrateriform, white with a yellow disk; *limb* nearly 3 inches across; *segments* rather longer than the tube, distant, oblong, blunt, undulated near the base; *tube* of the diameter of a small pen, hairy within down to the *anthers*, which are sessile below its middle, near the bottom: *pistil* equal to the stamens. We missed the opportunity of inspecting the corolla for description, after Mr. Edwards had made the drawing.

There cannot be a more eligible ornament for a lofty hot-house. That, from which the figure was taken in July last, had been in Mr. Vere's collection at Kensington Gore, for more than 23 years, and was about 14 feet high, but had been occasionally shortened on approaching the glass at the top of the stove. The species was introduced by Sir Joseph Banks about 1790.

Willdenow has adduced the figure of it in the Hortus Malabaricus, as the probable synonym of *P. obtusa*, a very distinct species from the West Indies.

It should be kept constantly in the tan-bed. We believe it never blossoms here till of a considerable age. Propagated by cuttings. New branches are produced by the side of the inflorescence during the slow progress of its evolution, which gives the peduncle the appearance of being central instead of terminal.

a Calyx. *b* Stamens; as seen in the vertically dissected tube of the corolla. *c* Pistil.



Lyt. Edwards. del.

Pub by J. Ridgway, 470 Piccadilly June 1. 1846.

Smith

ERICA ardens.

Sealing-wax Heath.

OCTANDRIA MONOGYNIA.

Nat. ord. ERICÆ (nuperius ERICÆÆ.) Jussieu gen. 159.

Div. I. Germen superum.

ERICA. Suprà vol. 1. fol. 6.

Div. V. Brevifloræ. Corollæ longitudine quartam unciaë partem superantes, nec semuncia longiores: Tubus calyce longior. *Dryander* in Hort. Kew. ed. 2. 2. 390.

Subdiv. A. Corollæ tubus subglobosus. *Antheræ* cristatæ in omnibus præter odoratam. Id. loc. cit.

E. ardens, bracteis duabus calyci proximis; tertia remota. *Dryander* loc. cit.

Erica ardens. *Andrew's's heaths*. vol. 2.

Fruticulus dumosus humilis elastico-rigens. Folia terna, decussato-sex-faria, confertiuscula, nec densa, seniores saturatè viridia divaricato-recurva, juniores pruinato-opaca imbricato-erecta, cuncta petiolata, crassa, rigida, $\frac{1}{3}$ partem unciaë longa, lanceolato-linearia, à supino planiuscula, subcanaliculata, glabra, marginata cartilagine tenuissimâ subtilitèr serrulatâ, orâ exindè reflexâ introrsum declivi discum argenteo-candicantem dorsi circumsepiente: petiolus erectus, ligulatus, firmus, basi gibbosus, 3-4-plo brevior. Flores terminales ramulorum brevium lateralium ramos inferius ambientium, subterno-aggregati, cernui, miniato-coccinei, visco tenaci splendente inuncti: pedunculi 1-flori, corollâ subsesquilongiores v. magis, filiformes, firmi, reflexi, rubicundi, pruinosi: bracteæ foliis subconformes sed colorati & minores. Cal. subtriplo brevior corollâ, coloratus, foliolis subbracteæformi-ovatis. Cor. cernua, urceolato-ovata, brevi collo parum arcuata, ore ampliusculo aperta; limbus brevis, erectus, laciniis rotundatis, transversim latioribus. Stam. inclusa; fil. ligulato-linearia, attenuata, complanata, alba, intra ventrem corollæ repressa cum flexurâ anfractuosa; anth. ferrugineæ, cristatæ. Germ. oblato-rotundum, depressum, virens, glabrum, 8-torosum, basi annulo glanduloso viridi 8-punctato cinctum. Stylus basi bulbosus, teres, robustus, erectus, albidus, æquans corollam: stigma nigricans, obtusum, obsoletè 4-fidum.

A species now pretty common in the collections round London, where it blossoms towards the end of March. Its source, as well as of the far greater part of its numerous ornamental congeners, is the Cape of Good Hope. Introduced by Mr. William Rolliston in 1800.

A dwarf bushy elastic shrub. Leaves in threes, decussated, six-ranked, near, not close, older ones of a dark deep green colour, outstretched and recurved, younger ones imbricated, frosted; the whole petioled, hard, somewhat

fleshy, about $\frac{1}{2}$ of an inch long, lanceolately linear, nearly flat above, with a thin finely serrulate rim, beyond which the border is reflectent and shelves inwards, so as to form a deep ledge round the sunk disk of the under surface, which is of a silvery white, *petiole* ligulate, short, pressed to the branch, protuberant at the foot. *Flowers* cernuous, generally in threes, from the ends of the short branchlets, which are produced sometimes loosely sometimes closely but irregularly at the sides of the principal branches considerably below the top, thus forming a kind of oblong panicle: *peduncles* one-flowered, more than once and a half shorter than the corolla, filiform, firm, reflectent, red, frosted: *bractes* nearly of the shape of the leaves, but smaller and coloured; two near the flower, one removed from it. *Calyx* about three times shorter than the corolla, coloured, leaflets ovate and like the bractes. *Corolla* of the colour of red sealing-wax, coated over with a shining diaphanous viscous substance ensnaring all the small insects that light upon it, rather more than a quarter of an inch long, urceolately ovate, slightly narrowed at the short neck, opened by a widish orifice; limb upright, very short, segments rounded and broader than deep. *Stamens* depressed to below the orifice: *filaments* ligulately linear, flat, tapered, bent with deep doubles, the lower of which slants outwards; *anthers* crested, reddish brown. *Germen* round, depressed, green, smooth, 8-knobbed, with a glandular ring below the base; *style* columnar, bulbous at the foot, equal to corolla; *stigma* obtuse, obscurely quadrifid, nearly black.

Requires, like the rest of the genus from the same regions, the protection of the greenhouse; and to be planted in peat-mould from the surface of sandy heaths.

The drawing was made at the nursery of Messrs. Colville, in the King's Road, Chelsea.

a Calyx. b The stamens. c A detached stamen; magnified. d Pistil.





Lyle Edwards del.

Tab by J. Ridgway 170 Peenilly June 1. 1816

Smith

CHELONE barbata.

Scarlet Chelone.

DIDYNAMIA ANGIOSPERMIA.

Nat. ord. BIGNONIÆ. Jussieu gen. 137.

Div. I. Fructus capsularis bivalvis. Caulis herbaceus.

CHELONE. Cal. 5-partitus 3-bracteatus. Cor. basi tubulosa, fauce inflata, limbo bilabiata, superius emarginata, inferius 3-fida. Filamentum quintum sterile, cæteris brevius. Stylus 1. Stig. 1. Caps. (supera) ovata, 2-loc. 2-valv. polysperma, valvis medio septiferis, receptaculo centrali valvularum septis applicito; semina numerosa margine membranacea. Herba basi lignosa, oppositifolia, flores densè spicati terminales. Character ex C. glabrâ. Jussieu gen. 137.

C. barbata, labio inferiore corollæ barbato, fauce hiantè, foliis integerrimis; radicalibus petiolatis, spathulato-lanceolatis, caulinis sessilibus lanceolatis, floribus pendulis paniculatis. Manch. suppl. meth. pl. 167.

Chelone barbata. Cavan. ic. 3. 22. t. 242. Willd. sp. pl. 3. 226. Hort. Kew. ed. 2. 4. 7.

Chelone formosa. Wendl. bot. beobacht. 51. Thompson's bot. displ. 4.

C. Ruellioides. Andrews's reposit. 34.

Herba perennis, lactescens; radix fibrosa, rhizomate fermè suffrutescente, diviso; caules plures, teretes, erecti, glabri, glaucescentes ac tota planta, 3-6-pedales simplices. Folia opposita, patentia, caulina distantia, decrescentia ut evadant summa floralia non nisi bracteolæ subulatæ; radicealia 8 uncias ferè longa latitudine modò unius. Panicula caulis continua, longa, distans, erecta, oppositè florigera, infernè subfoliacea; flores cernui, pedunculis solitariis, erectiusculis, axillaribus dichotomo-bifloris, rariùs 1-floris; bracteolæ sub singulo pedicello, imis corollæ longioribus. Cal. parvus, ebracteatus, herbaceus, connivens, acutus, persistens. Cor. miniato-fulgens, tubuloso-elongata, subsesquiuncialis, suprâ ventricosior; limbus semiringens, brevis, labio superiore perrecto, obtuso; inferiore deflexo, intus flavo-barbato. Fil. glabra, imo tubo accreta, summa duo basi bulboso-incrassata; anth. didymæ, lobis verticali-divaricatis. Germ. pyramidatum; stylus filiformis; stigma obtusum.

A perennial herbaceous species, tolerably hardy and very ornamental. Native of Mexico. Introduced in 1794 by Sir Joseph Banks, and now become very general in our gardens.

It may be said to be suffrutescent, as the caudex, or upper continuation of the rootstock, never dies completely down to the ground. The whole plant, except the bloom, is smooth, glaucous, and lactescent; leaves op-

posite, decrescent, *lowermost* from six to eight inches, or more, in length, scarcely ever one in breadth, spatulately lanceolate, petioled, near; *uppermost* distant, linearly lanceolate, sessile. *Panicle* terminal, upright, tall, slightly pyramidal, opposite-flowered, distant, subfoliaceous till the leaves gradually diminish to bractes; *peduncles* axillary, solitary, upright, slightly divergent, dichotomously two-flowered, with a small *bracte* under each short pedicle, decrescent, *lowermost* longer than the flower, which seldom exceeds an inch and a half. *Calyx* small, green, 5-parted, campanulate, acute, bracteless. *Corolla* of a red between vermilion and salmon-colour, deeper and shining along the upper side, elongatedly tubular; faux dilated, somewhat flattened at the upper side, three times longer than its diameter or more; limb semiringent, short, upper lip straight, obtuse, notched, lower tripartite, deflected, bearded, hairs yellow. *Filaments* cemented to the *lowermost* part of the tube, two *uppermost* having bulbously enlarged pediments; the fifth antherless and smooth, placed between the *uppermost* pair. In *PENSTEMON* the barren stamen has a shaggy pubescence extended along the upper side, something in the way of a mane, which constitutes a principal mark of distinction between that genus and the present, which were formerly considered as one.

Requires to be kept in a warm dry sheltered situation, where it will flower throughout the greater portion of the summer and autumn. Propagated by parting the root, and by cuttings, or slips.

The drawing was made from a plant Mr. N. S. Hodson had the kindness to send to Mr. Edwards, from his collection at South Lambeth.

a Calyx. *b* Corolla dissected vertically. *c* Pistil.





Lyd. Edwards. del.

Pub by J. Ridgway 170 Piccadilly June 1. 1846.

Smith sc

OXALIS flava.

Narrow finger-leaved Cape Wood-sorrel.

DECANDRIA PENTAGYNIA.

Nat. Ord. GERANIA. Jussieu gen. 269.

Div. Genera Geraniis affinia.

OXALIS. Cal. 5-partitus, persistens. Pet. 5, hypogyna, latere levitèr connexa. Stam. hypogyna, filamentis basi coalitis, alternis brevioribus; anth. subrotundæ. Germ. simplex. (Styli filiformes. Stigmata obtusa.) Caps. brevis aut oblonga, 5-gona 5-loc. loculis mono- aut poly-spermis, 5-valv. valvis introflexis & receptaculo centrali affixis, singulis loculum constituentibus & extùs elasticè bipartitis; semina compressa transversim multistriata arillata, receptaculo annexa. Herbae quædam radice tuberosâ, caulescentes aut scaposæ; folia confertim alterna, ternata aut rariùs abruptè pinnata, petiolo basi dilatato (stipulaceo?), juniora Filicum more in spiram involuta; pedunculi in scapis terminales, in caulibus axillares aut et terminales, nunc 1-flori medio bisquamulosi, nunc umbellatim multiflori umbellâ subinvolutatâ. Seminis minimi embryo videtur rectum absque albumine. Genus à GERANIIS distinctum stylis pluribus, capsulæ formâ et dehiscendi modo, embryone recto, albuminis defectû: an TRIBULO aut ZYGOPHYLLO affiniùs? Jussieu gen. 270.

O. flava, acaulis, scapo 1-floro foliorum longitudine, foliis digitatis linearibus canaliculatis acutis, stylis staminibus exterioribus brevioribus. Willd. sp. pl. 2. 804.

Oxalis flava. Linn. sp. pl. 1. 621. Thunb. diss. de Oxal. n. 24. 23. Prod. 83. Jacq. Oxal. 20. n. 93. 116. t. 73. Hort. Kew. 2. 115. ed. 2. 3. 131.

O. bulbosa augustis digitatis foliis, flore solitario luteo. Burm. afr. 68. t. 27. f. 4.

Bulbus ovatus, tunicâ fuscâ subnucamentaceâ, nucleo amygdalino-carnoso. Caudex squamosus, plùs minùs exsertus. Folia confertim terminalia, plùs minùs 5, digitata, glabra. Petioli basi articulati, crassi, compressuli, firmi, 1-2-unciales. Foliola 5-9, sessilia, ligulato-linearia, subattenuata deorsum, ex complicatis canaliculatim vel planè explicanda, obtusa cum minuto acuminulo, integerrima, subtilissimè punctata subtùs pallidiora, 2 lineas plùs minùs lata, 1-2 uncias longa. Pedunculi plures, 1-flori, basi articulati, subsemiteretes, glabri, staturâ ferè petiolorum, supernè bracteolis 2 subalternis. Calycis foliola lanceolata (obtusa), erecta, apicibus patula. Cor. triplo v. magis longior, flava; laminæ laciniarum, rotundatæ, amplæ, integræ, latere exteriorè dorsi rubentes. Fil. basi coalita, interiora denticulata, æqualia, pilis capitatis brevissimis raritèr aspersa cum denticulis glabris; exteriora pilis capitatis hirsuta. Anth. oblongæ, incumbentes, flavæ. Germ. ovato-oblongum, 5-sulcatum, glabrum, pallens. Styli brevissimi, subtùs capitatè hirsutuli, cæterum glabri. Descriptio à diffusiore Jaquini desumpta.

The place of this genus in a natural system does not seem to be finally determined. By Professor de Jussieu it has been provisionally enrolled in his order of *Gerania* or Geranium-tribe. Some species of it are to be found in each of the four quarters of the globe; but of rather more than a hundred that are already recorded, about ninety are natives of the Cape of Good Hope. The present is from thence, and was introduced by Mr. F. Masson in 1775.

Bulb about the size of a filbert, ovate, consisting of a crustaceously membranous covering, and a white kernel of the consistence of an almond. *Stem* more or less elevated above the ground, scaly. *Leaves* 5 or more, terminal, digitate, smooth; *petioles* 1-2 inches long, thick, compressed; *leaflets* 5-9, linear-ligulate, each at first folded separately, then expanded, obtuse with a small point, minutely dotted, paler at the under side, 1-2 inches long, about two lines broad. *Peduncles* several, nearly of the stature of the petioles, jointed at the base, one-flowered, having two small bractes placed alternately near its top. *Corolla* deep yellow. *Filaments* connected at the base, *inner ones* denticulate, sprinkled with short capitate hairs, from which the small teeth are free: *outer ones* thickly covered by the same kind of pubescence as the inner. *Styles* very short, pubescent underneath, smooth above. When the leaflets are closed the foliage has a very distinct appearance from that which it has when these unfold.

A greenhouse plant, cultivated in small pots filled with a mixture of peat-mould and hazel loam. The drawing was taken this spring at Mr. Creswell's conservatory in Battersea Square.

a Calyx. *b* Stamens and styles, when removed from the corolla, *d* The pistil. *c* A long and a short stamen.





Edw. Edwards del.

Rel. by J. R. Rulph 170 Piccadilly June 1 1816.

Smith Sc.

BRACHYSEMA latifolium.

Broad-leaved Brachysema.

DECANDRIA MONOGYNIA.

Nat. Ord. LEGUMINOSÆ. Jussieu gen. 345.

Div. IV. Cor. irregularis papilionacea. Stam. distincta, aut rarò basi coalita. Legumen uniloculare bivalve. Arbores aut frutices; folia simplicia aut ternata aut impari-pinnata. Id. l. c. 351.

BRACHYSEMA. Cal. 5-fidus, parùm inæqualis, tubo ventricoso. Cor. papilionacea, vexillum brevius carinâ compressâ alis æquante. Germen pedicello basi vaginulâ cincto. Stylus filiformis, elongatus. Legumen polyspermum, ventricosum. Brown in Hort. Kew. ed. 2. 3. 10.

B. latifolium, foliis ovatis planis, vexillo oblongo obovato. Brown in Hort. Kew. ed. 2. 3. 10.

Frutex procumbens, cano-pubescens, ramosus. Folia coriacea, ovata v. cordata, mucronata, venulosa, suprâ glauco-virentia, infrâ pube brevî appressâ albicantia, rachide subtus prominente et margine rubentia, brevissimè petiolata: stipulæ 2, subulatæ. Inflor. axillaris, foliis brevior; pedunculi 1-3-flori, vix calyci æquales, curvati; pedicelli etiam his breviores, aggregati, bracteolâ minutâ ad basin. Cal. cano-fuscescens, oblongo-campanulatus, subsemuncialis, bilabiato-partitus, æqualis, labio summo porrecto, divaricatè emarginato, infimo depressiore, trifido, segmentis subulato-lanceolatis. Cor. elongato-papilionacea alis adductis, punicea, unciam cum unâ tertiâ parte alterius circitèr longa; vexillum reliquis petalis inter se isometris duplò brevius, spathulatum, laminâ reflexâ ovali-oblongâ, disco striato-flavicante: alæ transversim oppositæ, pressæ secundum marginem carinæ, lineari-oblongæ, subfalcatæ, acumine obliquo brevi: carina detecta, porrecta, retusa, petalis alarum subsimilibus at ferè duplo latioribus, infernè nigricantibus et solutis dein confer-ruminatis. Stam. æquantia corollam, exsurgentia è carinâ; fil. rubicundæ; anth. incumbentes, flavæ. Germ. oblongiusculum, sericeo-hirsutum, insidens brevî pedicello è centro circuli carnosi crassi prominuli sub10torulosi ori-undi fundo calycis intra filamenta; stylus filiformis, ruber, suprâ aduncus; stigma obtusum.

A rare greenhouse plant, native of the south-west coast of New Holland. First found by Mr. Brown, by whom the genus in which it ranks was instituted in the last edition of the Hortus Kewensis. The inflorescence reminds us of that of *KENNEDIA rubicunda*, long known in our collections; but our plant stands in another class and order of the Linnean system, owing to the filaments being separate, and not connected, as in the great majority of its natural co-ordinates with a papilionaceous bloom and leguminous fruit.

It is a small trailing pubescent branching shrub. *Leaves* ovate or cordate, coriaceous, firm, veined, mucronate, of a glaucous green above, white below, from being covered by a minute silky pubescence, midrib prominent beneath, red as is the margin of the leaf: *stipules* subulate: *petiole* short. *Inflorescence* axillary, shorter than the foliage; *peduncles* 1-3-flowered, about the length of the calyx, curved, *pedicels* still shorter, aggregate, with a small *bracte* at the base. *Calyx* oblong-campanulate, scarcely half an inch long, bilabiate divided, *upper lip* broadly emarginate, *lower* trifid with lanceolate divisions. *Corolla* elongatedly papilionaceous with the wings drawn in, crimson, about an inch and one third of one in length; *vevillum* or *standard* twice shorter than the rest of the petals which are all of one length, spatulate, blade oval-oblong reflected with a streaked yellow disk; *wings* opposed to each other broadways, converging along the sides of the keel, which is open above and appears as of a piece with these, linear-oblong, subfalcate, with a short slanting point; *keel* or *boat* straight, retuse, of two petals similar to those of the wings, but nearly twice as broad, separated below, cemented to each by the inner edges above. *Stamens* equal to the corolla, rising at the summit from out the keel. *Germen* somewhat oblong, covered with a shaggy soft pubescence, supported by a very short thick pedicle, placed in the centre of a low obtuse fleshy circular excrescence, situated within the filaments at the bottom of the calyx. *Style* filiform, red, crooked at the top; *stigma* obtuse.

The drawing was made from a specimen which flowered in the conservatory of Mr. Creswell, in Battersea Square, in April last.



Sp. Edwards, del.

Rebby J. Ridgway 170 S. Smithy June 1 1840

Smith, n

WEBERA corymbosa.

Perfumed Webera.

PENTANDRIA MONOGYNIA.

Nat. Ord. RUBIACEÆ. Jussieu gen. 196.

Div. IV. Fructus monocarpus bilocularis polyspermus. *Folia opposita; caulis sæpè frutescens.*

WEBERA. Cal. 1-phyllus, semi5fidus, erectus, acutus, persistens. Cor. 1-petala, infundibuliformis. *Tubus calyce longior. Limbus 5-fidus: lac. ovato-oblongis, recurvis, infernè medio villosis. Fil. brevissima, tubo imposita; anth. lineares patentes. Germ. inferum subrotundum (polyspermum.) Stylus elevatus, teres, striatus, desinens in stigma clavatum, obtusum, angulato-alatum alis 10 membranaceis, angustis. Annulus carnosus styli basin ambiens. Bacca subglobosa, calyce coronata. Sem. (abortu) solitaria, orbiculata, hinc planiuscula, indè convexa, centro lateris sui plani medio dissepimenti baccae adfixa. Schreb. gen. 2. 794. n. 1733.*

W. corymbosa, inermis, foliis oblongis acutis, corymbo terminali.

Willd. sp. pl. 1. 1224.

Webera corymbosa. Hort. Kew. ed. 2. 1. 371.

Canthium corymbosum. Persoon syn. 1. 200.

Rondeletia asiatica. Linn. sp. pl. 1. 244.

R. foliis petiolatis. Flor. zeyl. 80. Mill. dict. ed. 7. n. 2.

Cupi. Rheede mal. 2. 37. t. 23.

Frutex erectus, tandèm suborgyalis; rami oppositi, teretes. Folia decussato-opposita distantia; coriacea, petiolata, elongato-lanceolata, acuminata, 6-8-uncialia latitudine biunciali majoreve, nervoso-costata, venosa, suprà glabra, saturatè viridia, subtùs pallentia, subvillosa ad nervos, margine subdeflexa, summa novella subtùs tota quanta gummoso-unctuosa: petioli multoties breviores; stipulæ interpetiolares, vaginantes, cuspidatæ. Panicula corymbosa, axillaris et terminalis, pedunculis cymoso-plurifloris, oppositis, erectis, villosiusculis et resinoso-unctuosis, pedicellis brevibus teretibus bracteolâ acutâ ad basin cum alterâ superiore at remotâ à flore. Germ. inferum, subrotundum, coronatum intra calycem disco isoperimetro glanduloso crasso suprà depresso: cal. ejusdem continuus, 4-5-7-8-partitus, campanulatus segmentis acutis, tubo corollæ brevioribus, alternis sæpè duplo v. magis minoribus. Corolla alba, denuò flavescens, semunciâ brevior, hypocrateriformis, extùs glabra; tubus ampliusculus, fauce clausus fimbriâ hirsutâ; limbus $\frac{1}{2}$ parte fernè longior, 5-partitus, rotato-reflexus, ciliolatus, laciniis ovalibus obtusis cum acuminulo; æqualibus, disco barbatis. Stam. parùm breviora limbo, alternâ cum laciniis, tandèm reflexa: fil. brevissima, ad fimbriam faucialem inserta: anth. pluriès longiores, luteæ, sagittato-lineares, introrsum dehiscentes, membranoso-mucronatæ. Stylus teres, brevis continuus cum stigmate clavato, corollæ æquali, molendinato aut alis 10 angustis per paria proximioribus angulato, notato utrinque suturâ depressâ verticali indicante naturam suam bilobam. Corolla nondum expansa accumbunt antheræ stigmati, excipiturque harum singula intra sulcùm per singulùm alarum par formatum.

A species not mentioned in the first edition of the *Hortus Kewensis*, but registered in Miller's Dictionary which preceded that work, as one cultivated at the Chelsea Garden. Nothing, however, is there said of it but what has been borrowed from the *Hortus Malabaricus*; and we own we generally suspect the accuracy of Miller, who inspires little confidence as a critic, when we find him recording plants as cultivated by himself, which are not repeated in the nearly cotemporary edition of the *Hortus Kewensis*.

A rare and handsome evergreen shrub, belonging to the *Cinchonaceæ*, a division of the *Rubiaceæ*, lately detached from the latter, and formed into a separate order, as suggested by Professor de Jussieu. *Stem* from 7 to 8 feet high, upright, oppositely branched. *Leaves* coriaceous, remotely decussated, divaricate, 6 or 7 inches long, of a bright lively green, elongatedly lanceolate, subobovate, moderately petioled, ribbed, somewhat reflected at the edge, downy on the nerves at the under side; where while the leaf is young, the surface is spread over with a resinous or gummy varnish gradually extending itself with the growth of the leaf until it becomes scarcely perceptible; *stipules* 2, interpetiolar, sheathing, cuspidate. *Blossom* white, fading to yellow, small, exquisitely fragrant, axillary and terminal, corymbose, *peduncles* several-flowered, cymose, viscous, subvillous, lower opposite and axillary. *Calyx* shallowly campanulate, 4-5-8-parted with the alternate segments often twice the smallest, villous, continuous with the round green *germen*, which is capped by a thick discoid glandular process holding the *style* on an upper depressed plane. *Corolla* less than half an inch in depth, hypocrateriform; *tube* shorter than the limb, closed just below the orifice by a narrow pubescent circle; *limb* reflectent, six-parted, not contorted, ciliate, smooth on the outside, bearded at the disk within, *segments* ovate-oblong. *Stamens* equal to the limb, reflectent; *filaments* several times shorter than the anthers, inserted at the mouth of the tube; *anthers* yellow, sagittately linear, mucronate, bursting inwards vertically. *Style* upright, short, round, forming with the stigma a continuous clavate shaft equal to the limb; *stigma* decagonally fluted with shallow membranous ridges and alternately wider grooves, pseudo-bilobed, a broad sunk seam marking its division into deep segments which do not come asunder. Previous to the expansion of

the flower, each alternate broader groove of the stigma will be found to enclose one of the anthers between its edges.

Native of the East Indies, common in most parts of the coast of Coromandel, and said to be fond of sandy spots. The drawing was made at the nursery of Messrs. Lee and Kennedy, Hammersmith, where it was accounted a stove-plant. It had been raised there from imported seed.

a Calyx. *b* Corolla dissected vertically. *c* Pistil.





Lyd. Edwards, del.

Pub. by J. Ridgway 170. Received July 1. 1816.

Smith. sc

AZALEA nudiflora. γ.
Pale red Honeysuckle-Azalea.

PENTANDRIA MONOGYNIA.

Nat. ord. RHODODENDRA. Jussieu gen. 158.

Div. I. Corolla monopétala.

AZALEA. Cal. 5-partitus, persistens. Cor. imo calyci inserta, infundibuliformis aut campanulata, 5-fida, inæqualis. Stam. sub pistillo inserta. Germ. superum; stylus unicus; stigma simplex capitatum. Caps. 5-loc., 5-valv., valvis utroque margine introflexo singulis loculum constituentibus polyspermum, et axi centrali annexis; sem. minuta. Frutices. Flores axillares aut terminales, subsolitarii aut racemosi, bracteolati. Folia A. procumbentis opposita, margine revoluta. Jussieu loc. cit.

A. nudiflora, subnudiflora; foliis lanceolato-oblongis utrinque glabriusculis, concoloribus, nervo suprâ lanuginoso, subtus setigero, margine ciliatis, floribus amplis non viscosis, tubo laciniis longiore, calycis dentibus brevibus ovali-subrotundis, staminibus longissimè exsertis. *Pursh loc. infrâ cit. sub periclymenoidi.*

Azalea nudiflora. Linn. sp. pl. 1. 214. Mill. dict. 8. n. Duham. arb. 1. 85. t. 3. Hort. Kew. 1. 202. ed. 2. 1. 319. Willd. sp. pl. 1. 831. Persoon syn. 1. 212.

Azalea periclymenoides. Mich. bor-amer. 1. 151. *Pursh amer. sept.* 1. 152.

A. periclymena. Persoon syn. 1. 213.

Cistus virginiana, periclymeni flore ampliori minùs odorato. *Pluk. maut.* 49.

(α) coccinea. *Curtis's magaz.* 180. *Hort. Kew. l. c.*

(β) rutilans. *Hort. Kew. l. c.*

(γ) carnea. *Suprà. Hort. Kew. l. c.*

(δ) alba. *Hort. Kew. l. c.*

(ε) papilionacea. *Hort. Kew. l. c.*

(ζ) partita. *Hort. Kew. l. c.*

(η) polyandra; floribus 10-20-andris. *Pursh loc. cit.*

Obs. Var. ι. (bicolor) Horti Kewensis in speciem separatur à *Pursh* nomine bicoloris.

Frutex bi-tripedalis v. ultrâ, divergentèr ramosus, ramis annotinis strictis teretibus aphyllis glabris, cortice rubro-fuscescente, novellis pilosis. Folia decidua, ramorum novellorum ambientèr terminalia, patentia, biuncialia v. ultrâ. Umbellæ laxiùs multifloræ, foliis subpræcociore; pedicelli erecti, flore bis magisve breviores, pilosi, bracteolis angustis interstincti. Cal. parvus, herbaceus, pilosus, fimbriatus, bilabiato-partitus, labii summi segmentis divaricatis recurvis, infimi tribus minimis. Cor. parum superans unciam, infundibuliformi-ringens, geniculato-nutans, externè pubescens, supernè carneo-pallescent, infernè intensius roseo-rubens, micans; tubus subcompressus, 5-gono-rotundatus; limbus parum brevior, bilabiato-rotatus, laciniis oblongis acuminatis undulatis, summis 3 imbricato-conniventibus, extimâ mediâ latiori ellipticâ, infimis 2 divaricatis. Stam. corollâ $\frac{1}{2}$ parte longiora, declinato-assurgentia, infra

medium pilosa: anth. oblongæ, breves, verticales, medio dorso affixæ, intro-versæ, ferrugineæ, apice biforaminatæ. Germ. virens, hirsutum; stylus æquans stamina, nisi propè basin glaberrimus; stig. virens, capitatum, transversim compressum, papillosum.

We have enumerated a part of the many varieties of this beautiful shrub already known in our gardens. According to Mr. Pursh the species is found in North America, from Canada to Georgia, and sometimes with double flowers. In the neighbourhood of Philadelphia it is known to vary with from 10 to 20 stamens; a proof, Mr. Pursh observes, of its being of the same natural genus as RHODODENDRON, which is on the other hand frequently found with fewer than ten stamens, its general quota. But all AZALEAS are said to have occasionally more than their standard number of five stamens.

A hardy plant, rarely much above three feet high, deciduous; branches subverticillate, lowermost but little above the root, spindled, straight, smooth, naked, hazel-brown, those of the same year hairy. *Leaves* appearing rather later than the inflorescence, surrounding the young green branches, of the same colour on both sides, two inches or more long, nearly smooth, ciliate; rib downy above, with soft bristles beneath. *Umbel* terminal, many-flowered, partly preceding the foliage; *pedicles* twice shorter than the flowers or shorter, hairy, parted by small narrow bractes. *Cal.* small, herbaceous hirsute and fringed, bilabiate, upper lip with recurved divaricate divisions, lower with minute ones. *Corolla* not viscid, but pubescent outwards, rather more than an inch deep, funnellformedly ringent, geniculately bent, upwards flesh-coloured or pink, downwards of a deep rose-colour, glittering; *tube* slightly compressed; *limb* rather shorter, segments acuminate, undulate, 3 upper converging imbricately, outer middle one broadest, two lowermost divaricate. *Stamens* protruded a third farther, assurgent, pubescent below their middle: *anthers* with a doubly perforated point. *Germen* hirsute: *style* equal to stamens: *stigma* green, capitate, transversely compressed, roughened.

Propagated by layers and imported seed. Thrives best in bog-earth. The drawing was made in April, from a plant in the collection of Colonel Ansley, at Otto-house, North End, Hammersmith.

a Calyx. *b* Stamens. *c* Pistil.



Sp. Edwards del.

Pubby J. Ridgway 170. Recollected July 1. 1846.

Smith n

CYTISUS proliferus.

Silky Cytisus.

DIADELPHIA DECANDRIA.

Nat. ord. LEGUMINOSÆ. Jussieu gen. 352.

Div. V. Corolla irregularis papilionacea. Legumen 1-loc., 2-valv. Frutices aut herbæ; folia simplicia aut ternata aut rariùs digitata; stipulæ nunc subnullæ, nunc conspicuæ imo petiolo adnatæ aut ab eodem distinctæ.

CYTISUS. Cal. subbilabiatuſ supra bidentatuſ & infra tridentatuſ, nunc brevis campanulatuſ, nunc longior cylindricuſ. Corollæ vexillum reflexuſ; alæ et carina ſimplex conniventuſ supra ſtamina. Stig. ſimplex. Legum. oblonguſ compreſſuſ polyspermuſ. Fruticeſ aut ſuffruticeſ inermuſ, rariùs arbuſculæ; folia ternata; ſtipulæ ſubnullæ aut minimæ; floreſ terminaleſ aut axillareſ, ſolitarii aut rariùs ſpicati, plerùmq; lutei. Id. loc. cit. 354.

C. proliferuſ, floribuſ umbellatiſ lateralibuſ, caulibuſ erectiſ, foliis ellipticiſ erectiſ ſubtuſ ſericeis, calycibuſ lanatiſ. Hort. Kew. 3. 51.

Cytisus proliferuſ. Linn. ſuppl. 328. Venten. cels. 13. Willd. ſp. pl. 3. 1126. Hort. Kew. ed. 2. 4. 322. Lamarck encyc. 2. 248.

Scobon. Teneriff.

Frutex vimineuſ, elatior, ſempervirenſ, pubeſcenſ. Rami longi tereteſ, hirsutiùſ villoſi, caneſcentuſ, patenteſ, flexileſ, foliati, racemoſo-ramuloſi, ramuliſ numeroſiſ, axillaribuſ, ſolitariiſ, brevibuſ, umbelliferiſ. Folia numeroſa, ſparſa, petiolata, ternata; foliola lanceolato-ovalia, mucronata, appreſſe villoſa, ſubtuſ ſericeo-albicantia, petiolo duplo magiſve longiora. Umbella 4-8-flora è gemmâ communi ſolitaria, terminali, pedicelliſ 1-floriſ, verticillatim poſitiſ, $\frac{1}{4}$ parteſ unciæ longiſ, filiformibuſ, villoſiſ, bracteolam linearem imo labio calyciſ adpreſſam gerentibuſ. Peracta floreſcentia brevis ramuluſ excreſcere pergit è centro pedicelloruſ in longuſ ramuſ, ita ut fructuſ maturuſ evadat infernuſ in eo. Floreſ nutanteſ, pedicelliſ æqualeſ, inodori. Cal. lanatuſ, cylindricuſ, labiiſ æquilongis, ſummo bidentato-exciſo, imo integerrimo lanceolato-naviculari. Cor. major, alba, vergenſ dein in ochroleucam, externè lanuginosa; vexillum ovato-rotunduſ, emarginatuſ, reflectenſ, lateribuſ ponè dorſuſ conniventibuſ; alæ huic iſometræ, duplo anguſtioruſ, ſupra carinam convergenteſ à latere ſuo interiore, margine corrugata; carina parim brevior, compreſſa, obtuſula, petaliſ ſupernè coherentibuſ. Stam. monadelphia, æqualia; anth. aurantiacæ. Germ. lineare, compreſſuſ, ſericeo-hirſutuſ, ſtylo filiformi parim breviuſ; ſtigma punctuſ vix tumiduſ, puberuſ.

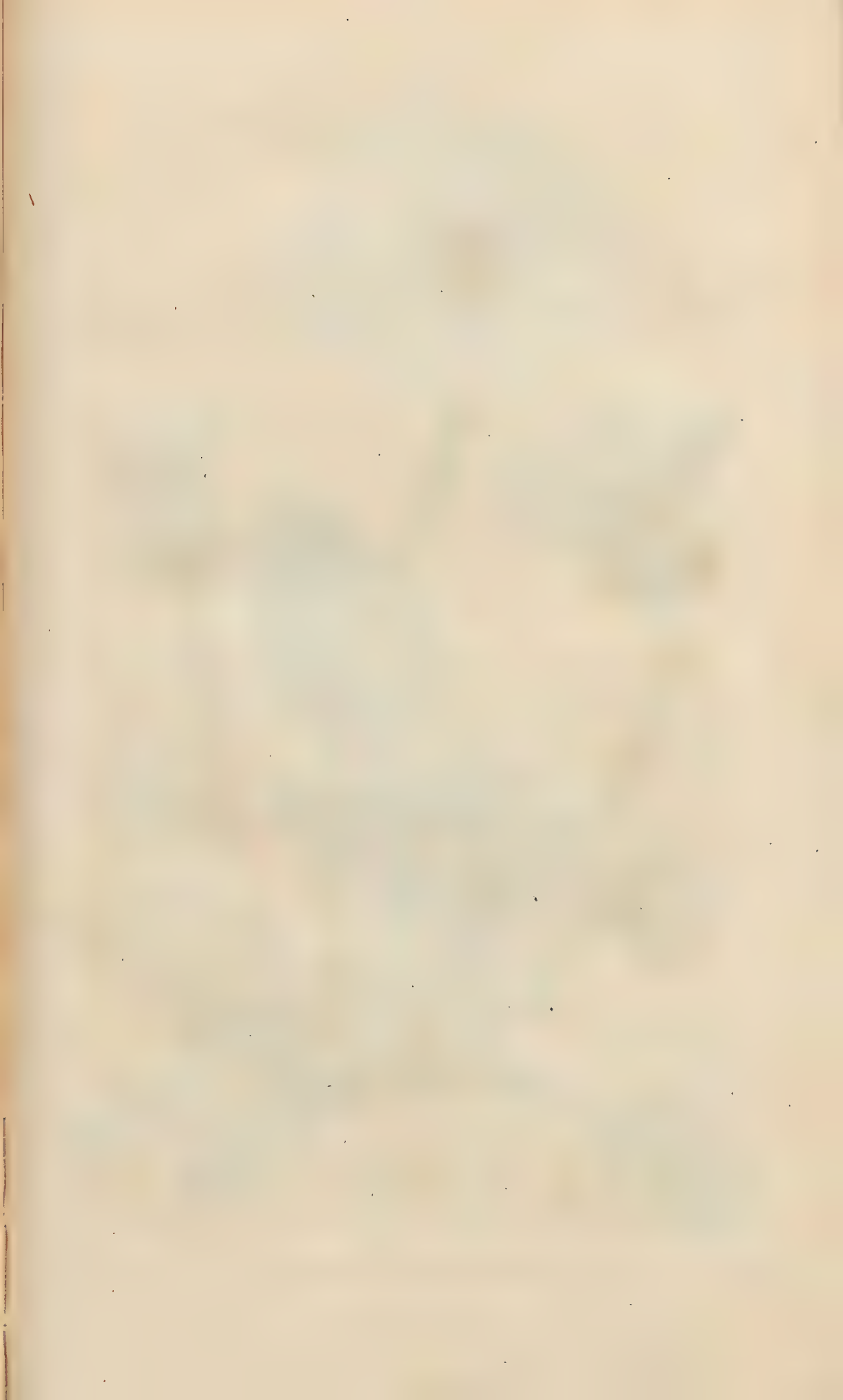
This fine evergreen ſhrub iſ native of the Canary Iſlandſ, from whence it waſ introduced by Mr. Maſſon in 1779. In the Iſland of Teneriffe, where it iſ found on the mountainſ, it iſ known by the name of *Scobon*. With uſ it requireſ to

be kept in the greenhouse, and will grow to a considerable height, producing a stem an inch in diameter. We have seen the long branches bending with a profusion of flowerbearing branchlets (from which it derives its specific title) scattered on all sides of them for the length of more than two feet.

The whole plant is pubescent, and has a soft silvery appearance when in full bloom. *Branches* round, long, flexible, leafy, racemosely branchletted, branchlets numerous, axillary, umbelliferous, solitary, short. *Leaves* numerous, scattered, petioled, ternate; *leaflets* lanceolately oval, mucronate, silky, thinly so and green above, beneath thickly so and white, twice the length or more of the petiole. *Umbels* 4-8-flowered issuing from a bud at the end of the branchlets; pedicles verticillate, one-flowered, about three fourths of an inch long, filiform, flexible, hairy, with a linear bracteole pressed against the lower lip of the calyx. As the flowers fade the branchlet begins to extend itself rapidly from the centre of the umbel, so that by the time the fruit is ripe, that has the appearance of belonging to a blossom which had been produced at the bottom instead of the summit of the branchlet. *Flowers* inclining forwards, about the length of their pedicles, scentless. *Calyx* woolly, cylindrical, *lips* equal, upper one notched, lower entire navicular. *Corolla* largish, white, tending to cream-colour, downy on the outside; *vexillum* or standard ovately round, notched, reflectent, with sides that meet together behind its back; *alæ* or wings as long as the vexillum, but twice as narrow, converging over the carina, wrinkled at the edge; *carina* or boat but little shorter, compressed, obtuse, with the two petals cemented together upwards. *Stamens* monadelphous, grown together into a membranous tube; not diadelphous and consisting of two sets, the one nine-stamened, the other single, as is more usual in the genus. *Anthers* of an orange-yellow. *Germen* linear, compressed with a long silky pubescence; *style* filiform; *stigma* a scarcely enlarged point.

Drawn in April, at the nursery of Messrs. Whitley, Brames, and Milne, King's Road, Fulham.

a Calyx. *b* One of the two *alæ* or wings. *d* The carina or boat. *e* The ten tubularly monadelphous stamens. *f* The pistil or germen, style, and stigma.





Epil. Edwards. del.

Publ. by J. Redgrave & Co. London. July 1. 1816.

Smith. 58

ARCTOTIS acaulis.

Dwarf Arctotis.

SYNGENESIA POLYGAMIA NECESSARIA.

Nat. ord. CORYMBIFERÆ. Jussieu gen. 177.

Div. VII. Receptaculum paleaceum. Semen papposum, pappo plumoso aut piloso aut aristato (v. paleaceo). Flores sæpiùs radiati.

ARCTOTIS. Suprà vol. 1. fol. 32.

A. acaulis, pedunculis radicalibus foliis lyratis. Linn. sp. pl. 2. 1306.

Arctotis acaulis. Hort. Kew. 3. 274. ed. 2. 5. 169. Trew ehret. 53. t. 93. Willd. sp. pl. 3. 2348; (excluso Jacq. hort. schænb. 2. 16. t. 158).

Anemonospermum Africana foliis plantaginis flore sulphureo. Comm. rar. 35. t. 35.

(β) foliis longè lyratis acutè dentatis.

Arctotis speciosa. Jacq. hort. Schænb. 2. 18. t. 161. Willd. sp. pl. 3. 2350; (exclusa *A. grandiflora*. Hort. Kew.).

A. acaulis. Mill. dict. 8. n. 6; (ex specimine archetypo in Herb. Banks.).

Radix rhizoma descendens perenne. Folia plurima, radicalia, ambientia, erecto-recumbentia, lyrata, 4-6-uncialia, crassiuscula, remotiùs mucronato-vel subspinuloso-denticulata, suprà densè et asperiùs villosa virentiaque, infrà tomentoso-candicantia et varicoso-nervosa, lobis lateralibus oblongis subdifformibus, terminali magno ovato subduplicato-dentato v. inciso-dentato. Pedunculi plures, radicales, æquantes folia v. plurimùm longiores, uniflori, teretes, robusti, striati, fistulosi, villis pilis puniceis interspersis hirsuti, modò bractea lineari, rarò et folio in axillâ gerente pedunculum alterum, stipati. Flores plus quàm duas uncias transversi, radio intùs lutescentes cum basi atropurpureâ, extùs puniceis, disco nigricantes, revoluti-emarcescentes. Calycis squamæ exteriores arachnoideo-lanatæ, fuscæ, subulato-appendiculatæ, partim reflexæ partim appressæ, interiores erectæ, glabræ, laminâ obovatâ scariosâ margine sphacelato-puniceis. Cætera fere ac in ARCTOTIDE aureolâ N^o superioris 32, sed pappum habet paleaceum in simplici serie, nec duplici ac in eâ.

A dwarf perennial species from the Cape of Good Hope; cultivated in our collections before 1759. The bloom is produced in succession from April to June, or longer; and requires a warm sunshiny situation to expand in perfection.

Leaves several, sometimes many, radical, ambient, inner upright, outer recumbent, 4-6 inches long, lyrate, thickened, surrounded by loosely set small mucronate teeth, green above and thickly covered by a rough longish pile, which feels like plush, beneath tomentose white and vari-

cosely nerved; lateral lobes oblong, somewhat ascendent, not uniform; terminal one large, ovate, doubly and sometimes sinuately indented. *Peduncles* several, sometimes many, radical, equal to or nearly twice the length of the foliage, one-flowered, round, thick, striate, piped, roughened by a close partly purple-coloured longish pile, sometimes with a linear bracte at some distance below the flower, now and then with a leaf near the base, from the angle of which another peduncle is produced. *Flower* exceeding two inches in diameter; ray yellow within, puce-coloured red without, rolling outwards as it decays, disk nearly black. Outer scales of the calyx araneously pubescent, terminated by a longish narrow subulate shaft, part of them reflectent, part pressed to the inner. In respect to the other parts of the flower; they resemble nearly those of *ARCTORIS aureola*, of the 32d article of this work, except that the paleaceous pappus of the seed is of one, not of two ranks, as in that.

A hardy greenhouse plant. Propagated by dividing the root.

The drawing was made at the nursery of Messrs. Lee and Kennedy at Hammersmith.

a A floret of the ray. *b* A sterile floret of the disk. *c* A vertical section of calyx and receptacle.



Lysichiton ciliatus, det.

Libby J. Ridgway 170 Secundity July 1, 1816.

Smith. 30

NARCISSUS montanus.
White Mountain Daffodil.

HEXANDRIA MONOGYNIA.

Nat. ord. NARCISSI. Jussieu gen. 54.

Div. II. Germen inferum.

AMARYLLIDÆÆ. Brown. prod. 296.

Sect. I. Radix bulbosa. Flores spathacei, umbellati, raro solitarii.

NARCISSUS. *Inflo.* pedunculata, uni-multiflora, umbellata, terminatrix scapi; *spatha* inæqualissimè bivalvis valvâ exteriore folliculari. *Cal.* O. *Cor.* regularis, infra tubulosa, suprâ sexfida rotato-v. radiato-explanata, *coronâ* campanulatâ parietis internæ tubi continuâ. *Stam.* tubo diversimodè adnata, alternè longiora v. æqualia, inclusa coronâ, erecta, rariùs inclinata. *Stylus* 1, coronam æquans v. exsertus: *stigma* 1 subtrilobo-obtusum & hians, v. 3 brevia. *Caps.* 3-loc., 3-valv., polysperma, valvis medio septigeris: *sem.* biseriata, plura, globosa modò variè pressa.

Bulbus tunicatus, involutus indusiis membranaceis. Folia 1-2-plura, bifaria, carnosa, lorata atque planiuscula, v. canaliculato-semiteretia, modòve teretia et juncea. Scapus centralis. Flores variè albicantes aut flavicantes raro virentes. Valva interna spathæ inclusa angustissima, modòque vix conspicua. Differt PANCRACTIO coronâ non connectente stamina extra tubum.

N. montanus, subuniflorus; germine exsuperante spatham; corolla cernua dein nutante, limbo subrecurvo duplo excedente coronam cyathiformem; staminibus æqualibus foliis planis.

Queltia poculigera. *Salisb. in trans. hort. soc.* 1. 352.

Narcissus totus albus maximus, calyce mediocri serotinus. *Barrel.* 67. n. 711. t. 948.

N. montanus sive *Nompareille totus albus.* *Park. par. t.* 71. fig. 6.

*Folia subquaterna, lorato-elongata, glauca. Scapus istis subæqualis, compresso-teres, margine duplici. Spatha sphacelata, æquans pedunculum uncialem v. magis, tubo 2-3-plo longiorem, erectum. Flos cernuus, totus quantus albidus, subbiuncialis, odoratus. Germ. oblongum, trisulcum, haud multum brevius tubo. Tubus virens, cylindricus diametro ferè germinis, $\frac{1}{2}$ brevior limbo. Limbus stellatus, subrecurvatus, parùm inæqualis: corona plicato-striata, crenulato-erosa; *stam.* infra os tubi inserta, inclusa coronâ, omnia exserta tubo, conniventia; *anth.* lineares flavæ. *Stig.* obsoletè trilobo-obtusum, apertum.*

The second section of the *Narcissi* of Jussieu has been converted by Mr. Brown into a separate order under the title of *Amaryllidææ*. The genuine affinity of its genera is remarked in one of those summaries by which M. de Jussieu

concludes and reviews each of his orders in succession; and in which perhaps are to be found the brightest displays of the sagacity which so eminently distinguishes him.

The difference between NARCISSUS and PANCRACTIUM lies in the crown of the corolla; this in the former does not coalesce with the stamens above the mouth of the tube, while on the latter it is connected with them for its whole length or nearly so.

Notwithstanding the present species has been cultivated and described by Parkinson before 1629; yet we do not find it recorded, nor its figure or description even quoted as a synonym to a plant, in any general system of vegetables. It comes the nearest to NARCISSUS *incomparabilis*; but differs from that in having a flowerstalk two or three times longer than the tube of the corolla, and fully equal to the spathe, not two or three times shorter; in having a germen above, not enclosed within the spathe; a smaller flower of one colour, and on emersion from the spathe completely cernuous, oblong-lanceolate segments, a proportionately shorter crown less conspicuously plaited and curled. *Leaves* generally four, lorately elongated, flattened, glaucous. *Stem* about equal to these, round, compressed, subancipital. *Flower* generally but one, white, about two inches deep, odorous, diverging after complete expansion from the stem. *Tube* nearly of the diameter of the germen, green, two or three times shorter than the peduncle. *Limb* partly recurved, nearly equal. *Crown* plaitedly-streaked, crenulately eroded. *Stamens* inserted below the mouth of the tube, but protruding beyond it, tho' not beyond the crown, connivent. *Anthers* linear, yellow. *Stigma* an obtuse obscurely 3-lobed hollow point.

Mr. Salisbury tells us that the species is found wild in the Pyrenees. He recommends the cultivating of it in a deep and moist soil. A very rare plant in our collections, nor had we ever seen it until the present specimen was kindly sent us by Mr. George Anderson, from his garden at West Ham, Essex, in April last. This gentleman has, we understand, the completest collection of the species of this genus of any one in England.



Edwards del

Pubby & Ridgway l/d. Piccolly July 1846

Smith s.

ECHIUM grandiflorum.

Long-flowered Viper's Bugloss.

PENTANDRIA MONOGYNIA.

Nat. Ord. BORRAGINÆÆ. Jussieu gen. 128. Div. III.

BORAGINÆÆ. Cal. 5-divisus, (raro 4-divisus,) persistens. Cor. hypogyna, 1-petala, sæpissimè regularis, 5-fida, nunc 4-fida; æstivatione imbricatâ. Stam. epipetala, numero laciniarum et cum iis alternantia, raro plura. Germ. 4-partitum, 4-spermum, v. simplex 2-4-loc., ovulis definitis pendulis. Nuculæ 4, distinctæ v. infrà connatæ; nunc Drupa 4-loc. v. Bacca 2-4-pyrena. Sem. exalbuminosa, modò albumine lamelliformi, carnosio. Embryo inversus. Herbæ v. frutices. Folia alterna, exstipulata, sæpè aspera. Flores in spicis sæpè secundi, nunc paniculati, v. corymbosi, quandòque axillares solitarii. Brown prod. 492.

ECHIUM. Suprà vol. 1. fol. 36.

E. grandiflorum, caule glabro, foliis lanceolatis supra scabris, floribus cymosis æqualibus, corollarum tubo longissimo. Venten. malmais. 97.

Echium grandiflorum. Andrews's reposit. 20. Hort. Kew. ed. 2. 1. 299.

Echium formosum. Persoon syn. 1. 163.

E. regulariflorum. Recens. pl. in reposit. botan. depict. 11. n. 42.

Caulis fruticosus, tripedalis magisve, digitum crassus, erectus, cicatrizatus, glaber, supernè foliosus et herbaceo-virescens. Folia undique sparsa, proxima, recurvo-patentia, semiamplexicaulia, elongato-lanceolata, longè attenuata, suprà convexa, callis setigeris hispida, subtus glabra, serrato- et strigoso-ciliata, longitudine subtriuncialia, latitudine vix semuncialia. Flores superni, folioso-paniculati, recurvo-nutantes, spiculæ plures, terminales et axillares, pedunculatæ, divaricato-dichotomæ v. conjugatæ, foliaceo-bracteata, alternè secundæ, rachidibus binatis flexuosis asperis, alterâ exteriori in singulâ spiculâ brevior 1- v. pauciflorâ, folio brevior ovato-acuminato ad basin utriusque: pedicelli recti, teretes, calyci subduplo breviores, hispidi; hîc et illic abortiunt spiculæ in florem solitarium axillarem. Cal. herbaceus, persistens, corollâ duplo brevior, profundè partitus, segmentis lanceolatis, erecto-conniventibus, carinâ et margine hispidis, superiore longiore. Cor. firma, carneo-rubens, infundibuliformi-cylindrica, sesqui-biuncialis, rectissima, regularis et æqualis, extûs lanuginosa; tubus striato-pentagonus, infernè plicato-attenuatus, supernè explicato-ampliat, limbo pluriès longior, intûs infra medium ad supra germen hirsutus; limbus patentissimus laciniis rotundatis, transverse latioribus et ruguloso-undulatis. Stam. usque ad basin limbi producta, inæqualia, divergentia, subassurgentia, pro tertiâ suâ parte adnata corollæ. Stylus persistens post dilapsam corollam: stigma emarginatum.

A handsome-flowered shrubby species, introduced by the late Mr. Masson, from the Cape of Good Hope, in

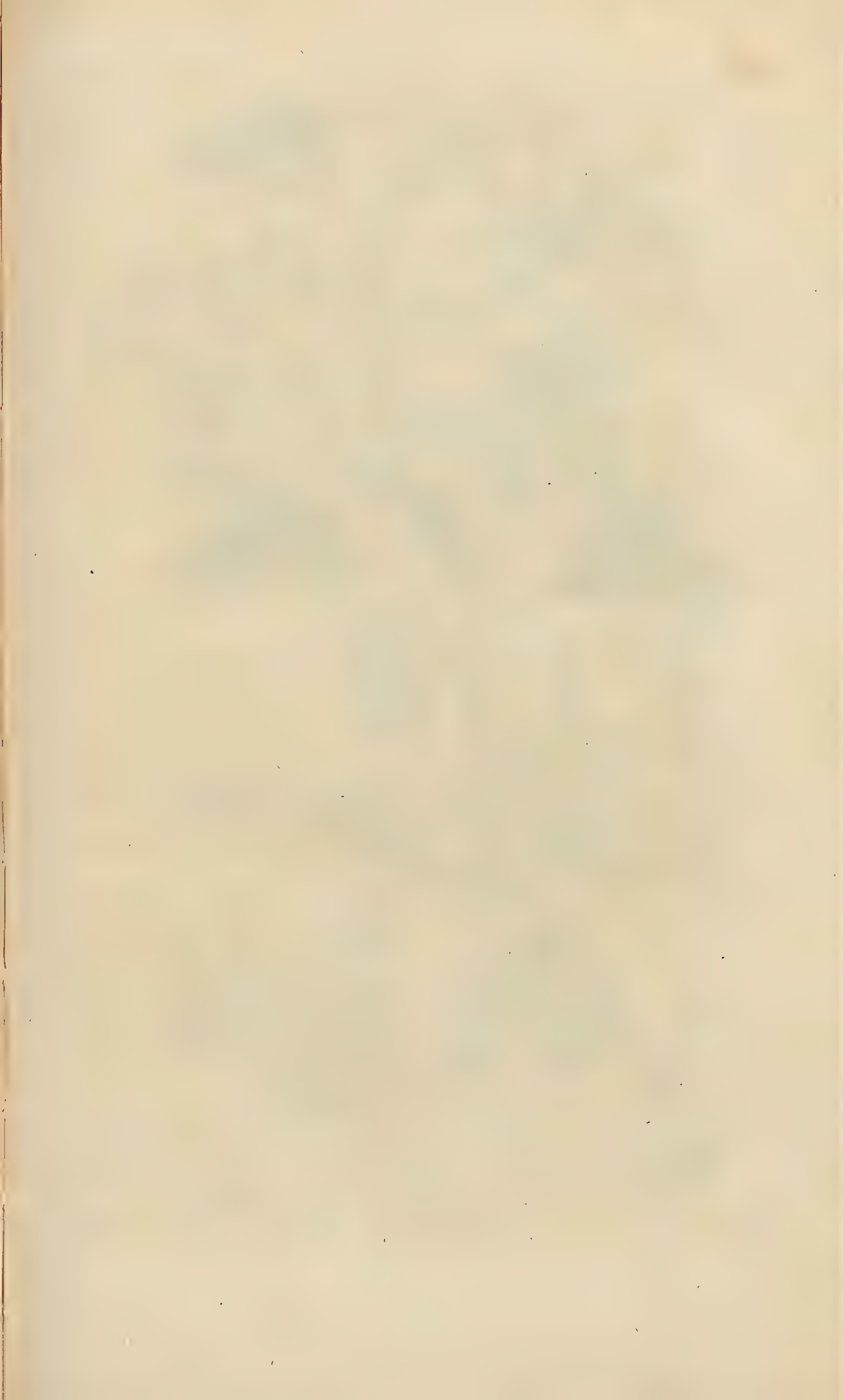
1787. It differs from its congeners by an entirely regular cylindrically elongated corolla.

We have seen no specimen which has exceeded three feet. *Stem* straight, about the thickness of a finger, naked and scarred downwards, upwards herbaceous and leafy. *Leaves* scattered in all directions, halfstem-embracing, spreading and recurved, elongatedly lanceolate, about three inches long and the half of one broad, convex and hispid above, smooth beneath, with a serrately hispid edge. *Flowers* large, pink or deeply flesh-coloured, disposed on the upper part of the stem in a recurved patent leafy *panicle*, of terminal and axillary divaricately dichotomous (or rather conjugate) nodding *spikelets*, *rachis* of each double flexuose alternate one ranked and bracteate, outer half shorter, sometimes one- and always fewer-flowered, with a broader ovate leaf placed at the base of the divisions: *bractes* foliaceous, single, longer than the *pedicles*. *Calyx* herbaceous, rough, twice shorter than the corolla, deeply parted, segments lanceolate upright, one larger than the rest. *Corolla* from an inch and half to near two inches deep, cylindrical, narrowed downwards, quite straight; *tube* several times longer than the *limb*, segments spreading, broader than long, rounded, with fine transverse wrinkles or plaits on the inside. *Stamens* reaching to the base of the limb, adnate for a third of their length, unequal, diverging, with a slightly assurgent bend. *Style* continuing for some time attached to the germen after the corolla has fallen off: *stigma* emarginate.

A greenhouse plant. Propagated by cuttings. Requires to be planted in peat-earth. Blooms in May and June.

The drawing was made from a plant which flowered in the conservatory of Mr. W. Creswell, Earl's Court, Brompton, at the same time with its congeners *candicans* and *fruticosum*, figured in the first volume of this work.

a Calyx. *b* The corolla dissected vertically. *c* Pistil.





Edw. Edwards del.

Pub. by J. Ridgway 170 Piccadilly, July 1. 1846.

Smith. sc.

odoratum: Wendl. (not R.)

RIBES aureum!

Missouri Curreant.

PENTANDRIA MONOGYNIA.

Nat. Ord. CACTI. Jussieu gen. 310.

Div. I. Petala et stamina definita.

RIBES. Cal. superus quinquefidus coloratus. Pet. 5, summo calyci inserta et alterna. Stam. eidem opposita, ibidemque inserta; anth. compressæ incumbentes. Germ. simplex; stylus 1; stig. 2. Bacca globosa, umbilicata, 1-loc., polysperma, receptaculis 2 oppositis seminiferis. Frutices, alii inermes, alii spinosi spinis simplicibus aut partitis, quibus axillares gemmæ ramulorum squamosæ; folia alterna, in spinescentibus paritèr axillaria, petiolo basi dilatato semiamplexicauli in inermibus ciliato aut interdum ciliis rigidis spinuloso; pedunculi axillares aut è gemmis erumpentes, spinescentium 1-3-flori, inermium racemoso-multiflori; flores 1-bracteati, baccæ esculentæ. Jussieu gen. 310.

Div. *Ribesia*, *inermia*.

R. aureum, inerme, glaberrimum; foliis 3-lobis: lobis divaricatis inciso-paucidentatis petiolo basi ciliato brevioribus, racemis laxis densè multifloris, calycibus tubulatis pedicellis longioribus: tubo gracili: laciniis oblongis obtusis, petalis linearibus laciniis calycis duplo brevioribus, bracteis linearibus longitudine pedicellorum, baccis glabris. *Pursh amer. sept. 1. 164.*

Ribes flavum. *Ad specim. nativum à Navarchis Lewis et Clarke ad cataractus Columbiae fluvii (Aprili 1806) lectum in Herb. Dom. A. B. Lambert repositum.*

(β) Foliis villosiusculis, pedunculis villosissimis.

Ribes longiflorum. *Fraser's cat. (1813). Ad specim. plura spontanea lecta ad Missouri fluvium à D. Nuttall et in Louisianâ superiori à D. Bradbury in Herb. Dom. A. B. Lambert asservata.*

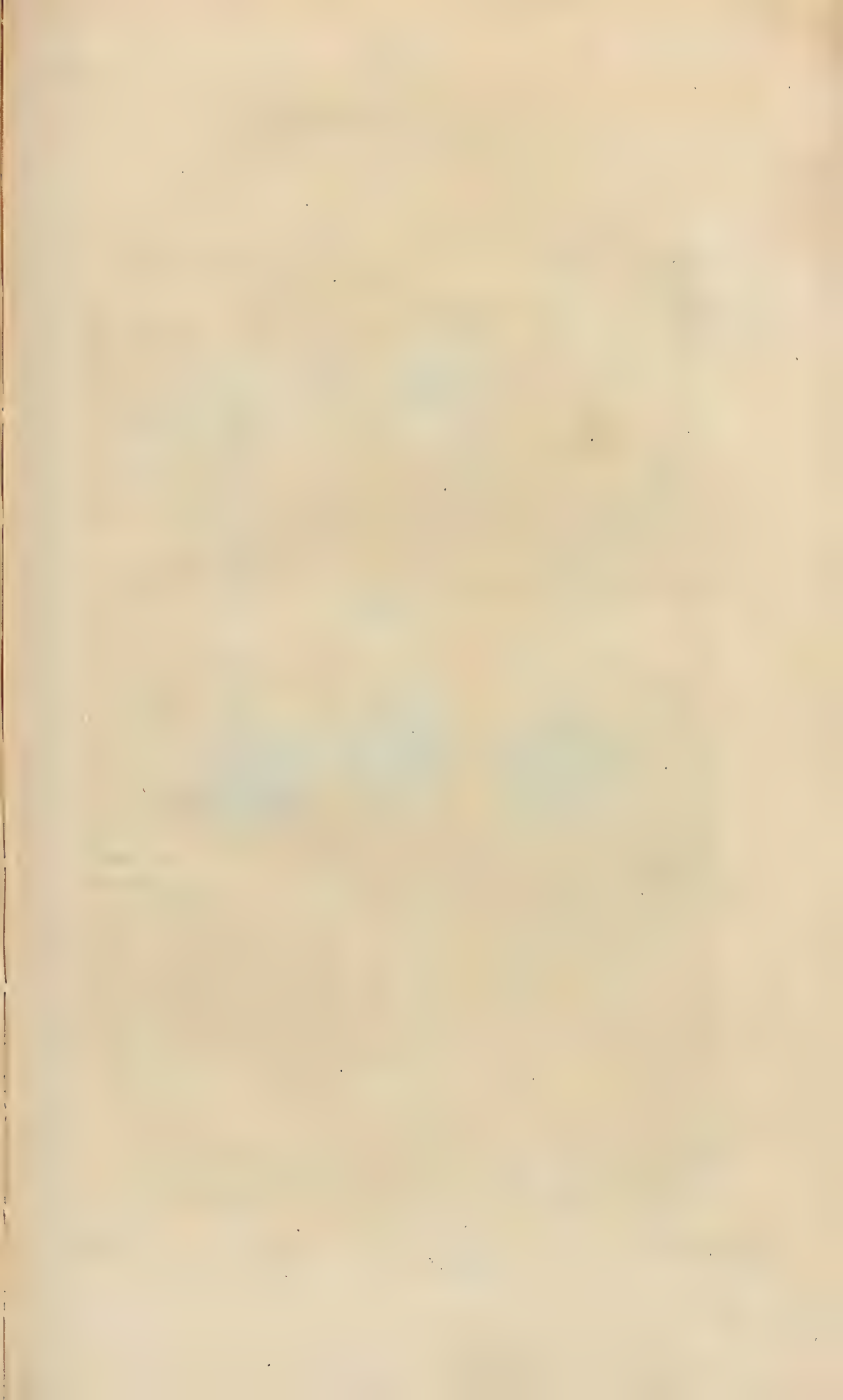
Rami teretes, ramuloso-frugiferi, fusciscentes epidermide in senescentibus desquamato-dehiscente. Folia ambientia, oblata, ovato-triloba lobis apice inciso-dentatis, cæterum integerrima, nervosa, glabriuscula, aminè erugata, villosa-ciliolata, exteriora quædam margine dilatatæ baseos petioli villosi pilosa; juniora atomis resinosis irrorata, adulta ad lentem albo-punctatis. Racemi è gemmis communibus solitarii, multiflori, erectiusculi, subbiunciales et suprâ, longiores foliis, infra medium nudi, supra thyrsoides-floridi; pedunculo villosiusculo, strictiori, pedicellis 1-floris, flore 3-4-plo brevioribus, erectis, bracteis foliaceis gradatim decrescentibus solitariis interstinctis, cum germine constrictim articulatis. Flores aurei, gratè odori, erectiusculi. Germ. curtè cylindricum, subrotundum, læve, virens nervis translucetibus. Cal. elongato-hypocrateriformis, glaberrimus, subuncialis, diametro ferè pennæ corvinæ, subarcuatus, segmentis duplo brevioribus tubo toto tereti, subæqualibus, cuneato-oblongis, apice rotundatis atque subinflexo-concavis. Cor. petala his duplo breviora, pallidiùs lutescentia supernè tandè roseo-rubentia, obovata, plana, erecta, collateraliter-contigua, apice erosa. Stam. vix breviora, intervallis petalorum astantia: anth. ovali-oblongæ, transversè compressæ à dorso affixæ.

erectæ, margine externâ rubente loculorum dehiscentes; pollen ochroleucum. Stigma viride, bifidum, æquale corollæ. Baccæ glabræ esulentæ.

A native of North America, where it has been found in Upper Louisiana on the banks of the Missouri, by Messrs. Bradbury and Nuttall; also on the other side of the Rocky Mountains on the banks of the Columbia by Captains Lewis and Clarke, in the celebrated journey across the American continent to the Pacific sea, performed by those officers at the order of the government of the United States. In Mr. A. B. Lambert's Herbarium there are specimens from each of these quarters, which seem to differ in no other respect; than that some of those from the Atlantic side of the Rocky Mountains are more conspicuously pubescent, and with larger bractes than those from the side next the Pacific. With us this prettly shrub has as yet no other value than that which arises from a colour and fragrance of blossom unlooked for in this genus; but in its native place it is highly prized for the excellence of the fruit, which is said to be larger than any of our more common garden sorts. The bush is perfectly hardy, and seems to thrive in almost any situation, blossoming freely about the middle of May; but no fruit has been obtained during the five years it has been known in our gardens, the flowers dropping off prematurely at the constricted joint below the germen. In size and manner of growth it resembles our common currants; but the foliage is considerably smaller, of a bright green, unwrinkled, indented only at the top of the three lobes into which it is divided, and in our specimen its surface on both sides was without pubescence, but the edge shortly ciliated. *Flower-bunches* numerous, scattered, solitary, produced as usual in the genus from a common bud with the foliage; *flowers* 10-20, quite smooth, nearly an inch long, of a bright golden yellow, disposed on the upper half of the *peduncle* in the form of a thyrze; *peduncle* villous, almost upright, *pedicles* 3-4 times shorter than the flower, separated by foliaceous entire gradually decreasing *bractes*. *Cal.* tubular and slightly curved. *Petals* pale yellow, changing at the top to a bright pink-colour. *Stamens* equal to the petals. *Stigma* deep green, bifid.

Introduced by Mr. Nuttall. The drawing was made at Mr. Knight's nursery, in the King's Road, Chelsea.

a The flower dissected vertically.





J. Edwards, del.

Pub. by S. Ridgway 170 Piccadilly July 1. 1816.

Smith & Co.

PINGUICULA lutea.

Yellow american Butterwort.

DIANDRIA MONOGYNIA.

Nat. Ord. LYSIMACHIÆ. Jussieu gen. 95. Div. III. Genera Lysimachiis affinia.

LENTIBULARIÆ. Cal. divisus persistens. Cor. 1-petala, hypogyna, irregularis, calcarata, bilabiata. Stam. inclusa, imæ corollæ inserta. Anth. simplices, nunc medio constrictæ. Germ. 1-loc. Stylus 1, brevissimus. Stigma bilabiatum. Caps. 1-loc., polysperma; placenta centrali magnâ. Sem. parva, exalbuminosa. Embryo nunc indivisus. *Herbæ aquaticæ v. paludosæ.* Brown prod. 429.

PINGUICULA. Cal. bilabiatus, supra trifidus, infra 2-fidus. Cor. irregularis, basi calcarata, fauce coarctata, limbo bilabiata, superius triloba, inferius biloba brevior. Stam. brevissima. Stylus brevis; stigma bilamellatum, antheras tegens. Caps. receptaculo centrali libero. Folia radicalia pinguia; scapus 1-florus; flos inversus. Jussieu gen. 98.

P. lutea, nectario subulato recurvo corollâ campanulatâ brevior, fauce barbatâ, labiis dentatis, scapo subvillosus. *Valit enum.* 1. 193.

Pinguicula lutea. Walt. carol. 63. Michaux bor. amer. 1. 11. Pursli. amer. sept. 1. 14. Persoon syn. 1. 17.

P. campanulata. Lamarck in Journ. d'hist. nat. 1. 334. tab. 18. fig. 1; (*de plantâ siccâ*). Persoon syn. 1. 18.

Perennis. Folia radicalia, plurifaria, imbricato-ambientia, patentia, ovata, obtusa, vesiculis diaphanis conspersa, margine inflexâ, subuncialia. Scapi 2-3, filiformes, erecti, 2-7-unciales, pilis capitato-viscidis villosi. Cal. cano-virescens; pubescens, segmentis obtusis. Cor. sine maculâ flavescens, 2-unciae transversa obscure bilabiata; tubus calyci æqualis, extus sub fauce impressus sulco, et cum calcare venis obsolete purpureis pictus; limbus explanatus, laciniis subæqualibus, labii supremi (floris resupinatione infimi) duobus obcordatis, subangustioribus, profundè emarginatis, collateraliter conniventibus, infimi (supremi ab inverso flore) tribus æqualibus, cuneato-obcordatis, subquadricrenatis; palatum flavo-barbatum, de fauce penicillato-prominens: calcar corollâ 3-plo magisve brevius, subulatum, sub fauce decurvatum. Germ. oblato-rotundum, obliquum, vesiculari-punctatum; stylus obsoletus; stigma subpetaloideum, transversum, labio antico majore oblato-obcordato sub anthesi super antheras revolutus, postico parallelo minimo erecto subovato. Stam. albida, collateralia, basi connexa et sub fronte resupinati germinis inserta, instar ferè corniculorum divergentia, dein incurvatim assurgentia, duplo breviora calyci: fil. robusta, teretia; anth. peltato-adnatæ, oblato-rotundæ, extrorsum obliquatæ, vertice foramine rotundo dehiscentes: pollen ochroleucum.

By Professor de Jussieu this genus had been appended to his order of *Lysimachiæ*, not however as a genuine co-ordinate, but provisionally, until its relations were more

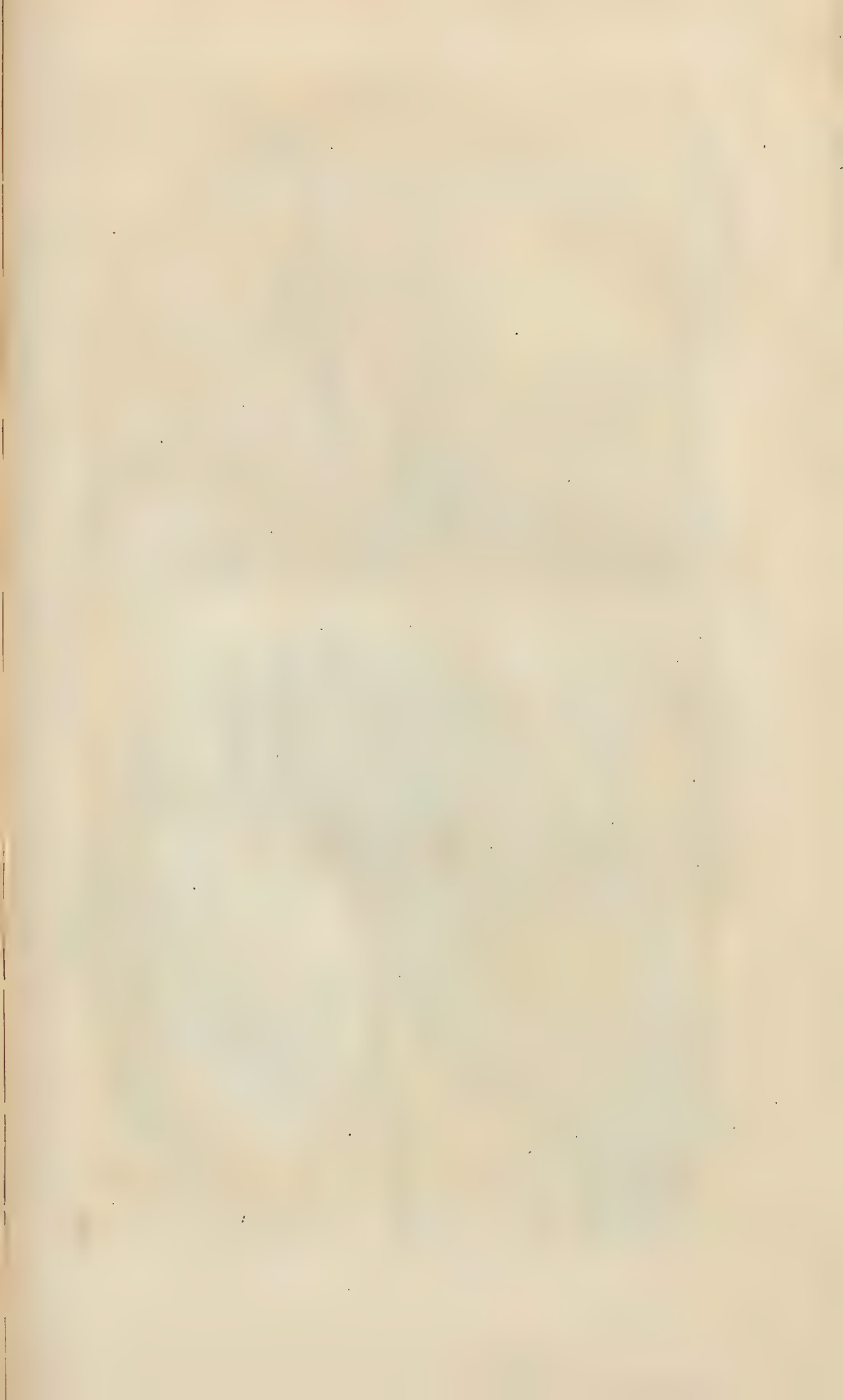
strictly ascertained. Since then it has been included by Monsieur Richard, in his order of *Lentibulariæ* or Bladderwort-tribe, consisting of aquatic or marshy plants, the character of which has been still more recently defined by Mr. Brown.

The generic appellation of *Pinguicula* refers to the unctuous shining appearance of the foliage of the common European species; so do the English and French ones of *Butterwort* and *Grassette*.

Lutea is a native of North America, where it grows in the pine-barrens of Lower Carolina, and differs from its congeners by a yellow crenated corolla, with a tufted protruded palate. It has been now first introduced by Messrs. Colvilles, nurserymen in the King's Road, Chelsea, who flowered it last May in pots of bog-earth, placed in pans of water on the flue of their hothouse. The plants had been sent them by Mr. Nuttall, a very intelligent collector, now in America.

Root perennial. *Leaves* radical, multifarious, imbricately ambient, spreading, ovate obtuse, an inch or more in length, vesicularly speckled. *Scapes* from the root, 2-3, one-flowered, filiform, upright, 2-7 inches high, covered with short glandularly capitate hairs. *Calyx* green, with a greyish pubescence, segments blunt. *Corolla* about three fourths of an inch or more across, obsoletely bilabiate; *limb* flat, nearly equal, resupinate, the two segments of the *upper lip* (by the inversion of the flower become the *lower*) obcordate, rather narrower, deeply emarginate, converging at their inner margins; the three of the *lower* (by inversion the *upper*) cuneately obcordate, each crenated with about 4 incisions; *palate* bearded, deep yellow, protruded beyond the orifice of the tube of the corolla; *spur* 3 times or more shorter than the corolla, subulate, pointing downwards with a curve. *Stigma* subpetaloid, unequally bilabiate, placed transversely on the germen, and consisting of two flat laminar lobes, the lowermost and largest of which bends itself downwards, so as to lap over the two stamens inserted below the base of the germen in front, assuming an upright direction when the anthers have parted with the pollen; the upper lip or laminar lobe is several times smaller, parallel with the back of the larger.—*Germen* unilocular, speckled with small whitish pustules.

a The back of the calyx. *b* The corolla removed from the calyx. *c* The same dissected thro' the spur or nectary, and showing the palate or upper side of the faux. *d* The two stamens, detached. *e* The pistil.





L. Smith sc

Pub. by J. R. Rogers 1911. Printed by J. R. Rogers

L. Smith sc

TULIPA cornuta.

Horned Tulip.

HEXANDRIA MONOGYNIA.

Nat. Ord. LILIA. Jussieu gen. 48. (*Ex nobis nunc rectius MELANTHACEIS Brown prod. 272 co-ordinanda.*)

TULIPA. Flores terminales, nudi, solitarii, cauli sessiles. Cal. 0. Cor. infera, hexapetala, campanulato-patens, regularis, subæqualis, decidua. Fil. hypogyna, erecta, crassius subulata: anth. oblongæ, erecto-vibratiles. Germ. prismaticum. Stigmata apicibus compresso-complicatis et variè reflexis valvarum germinis intus adnata, canaliculata. Caps. oblonga, coriacea, 3-loc., 3-valv., valvis medio septigeris, septis margine interna utrinque seminiferis: sem. numerosa, biseriatim cumulata, plana, incrassato-marginata, introrsum attenuata; albumen corneum.

Bulbus solidus ovato-pyramidatus, indusio crustaceo v. scarioso-membranaceo tectus, latere altero obliquatæ baseos radicans; altero anno post prolatum fructum enixus basi axeos rhizomatosæ propaginem similem frugiferam cum aliis sterilibus in toto periturus. Folia caulina, subbifaria, 3-plura, amplexicauli-vaginantia, carnosula, lineari- v. oblongo-lanceolata. Caulis subscaposus, uniflorus, rarius divisus. Genus confine MELANTHII nuperius in WURMBEAM et ORNITHOGLOSSUM distracti.

T. cornuta, uniflora; corolla è fusiformi-campanulata patentissima, petalis longissimis, caudatis.

Tulipa cornuta. Redouté liliac. 445.

Bulbus generis. Folia 3, elongato-lanceolata, longè acuminata, glauca, ubi latiora subundulata. Caulis teres, sesqui-bipedalis, subflexuosus, glaber, uniflorus, indivisus. Corollæ petala longitudinis ferè 5-uncialis, latitudinis ubi latissima vix excedentis $\frac{3}{4}$ partes uncia, colore varia, supernè involuta. Germen prismatiko-columnari, unciam cum alterius ferè quartâ parte altum; lobi capitelli stigmatosi profundè compressi, revoluto-divaricati. Stamina germine ex unâ quintâ suâ parte circitèr breviora.

The roots that produced the specimens from which the present drawing has been made, were imported by Mr. Hamilton (under-secretary in the department for foreign affairs) from Constantinople, and flowered last May at Mr. Knight's nursery in the King's Road, Chelsea. We have found no mention of this remarkable Tulip any where except in one of the later numbers of the work upon *Liliacées* by M. Redouté, where it is stated to have been introduced into the Parisian gardens directly from Persia, in 1811.

It is the nearest to TULIPA gesneriana of any other species; but differs from that as well as from all we are

acquainted with, by the depth of its fusiformly campanulate corolla, its narrow caudately lanceolate petals, and by stamens about one fifth shorter than the germen. The *bulb* is the usual one of the genus. *Leaves* 3, glaucous, elongatedly lanceolate, far acuminate, undulate where broadest. *Stem* from a foot and half to two feet high, round, smooth, slightly flexuose, one-flowered. *Corolla* about five inches deep. *Filaments* smooth. *Germen* columnar, prismatic, about an inch and one fourth high. *Stigmas* 3 deep laterally compressed lobes, edgewisely revolute, channelled at the upper edge, and forming a triangular capital to the column of the germen, much as in the common garden-Tulip. We did not perceive that the bloom had any scent. The species is stated to be as hardy, and of as easy culture and propagation as any of the other kinds, and to have produced seed and offsets in abundance in the Parisian gardens. To us it appears the most interesting acquisition that has fallen to the share of the florist for a long while.

We certainly did not expect that so conspicuous a flower had escaped the older florists, with whom the bulbous plants of the Levant seem to have been greater favourites than with our modern gardeners. We did not think that there remained even a variety of a Hyacinth or Tulip within the reach of the correspondent of a Turkey-merchant that was unknown to them, much less so remarkable a species. It appears to be as inconstant in its colour as *gesneriana* (the common garden-Tulip):





Lyd. Edwards, del.

Pub. by J. Ridgway Piccadilly Aug. 1. 1816.

Smith Sc.

CROTALARIA purpurea.

Purple Crotalaria.

DIADELPHIA DECANDRIA.

Nat. Ord. LEGUMINOSÆ. Jussieu gen. 345.

Div. V. Cor. irregularis papilionacea. Legumen 1-loculare bivalve.

CROTALARIA. Cal. profundè trifidus, laciniâ infimâ subtrifidâ. Corollæ vexillum alis et carinâ sæpè longius. Stam. omnia connexa cum fissurâ dorsali. Legumen pedicellatum turgidum 1-2-spermum. Herbæ aut frutices; folia simplicia aut ternata aut variè digitata; stipulæ subnullæ, aut conspicuæ et à petiolo plerùmque distinctæ; flores sæpè spicati, nunc terminales, nunc axillares aut foliis oppositi. Legumen in plurimis breve 1-2-spermum, in quibusdam longius polyspermum. Jussieu gen. 354.

Div. foliis compositis.

C. purpurea, foliis ternatis: foliolis obovatis retusis, racemis terminalibus, floribus saturatè purpureis. Venten. malmais. 66.

Crotalaria purpurea. Persoon syn. 2. 285. Hort. Kew. ed. 2. 4. 273.

Frutex orgyalem modò acquirens caulem, erectus, infrà nudiusculus et fusco-corticatus, suprâ contractiùs ramosus, ramis sparsis, foliatis, villosò-incanis. Folia laxè et irregularitèr sparsa, ternata, petiolo et subtùs appressè villosa, juniora suprâ lanugine ferè pulvereo-subtili opacata, venosa; foliola obovato-elliptica, retusa, reflexa, medium majus modò subsesquiunciale et petiolo communi ferè triplo longius: stipulis binis minutissimis villosis deciduis. Racemi terminales, erecti, multiflori, nunc ferè subpedales, infrâ subfoliosi, indè nudi, pedunculo communi tereti lanuginoso, pedicellis flore brevioribus, prope calycem stipatis bracteolis 2 minutis oppositis decurrentibus. Cal. lanuginosus, profundius bifidus, segmento supremo bidentato-truncato, imò trifido lobulis lanceolatis, medio longiore cuspidato distantiore, lateralibus ascendentibus. Cor. saturatè roseo-purpurea magnitudine ferè ONONIS rotundifoliæ: vexillum ascendens, emarginato-rotundum, 3-4-plo longius calyce, oculo albo et flavo ad basin notatum: alæ æquilongæ isti, 2-3-plo angustiores, supra carinam convergentes: carina parùm brevior, discretè dipetala, incurvo-assurgens, petalis conniventibus suprâ, in margine imâ ad flexuram brevè lobulo subauriculatis. Fil. pro duobus tertiis partibus monadelphicè connata. Germ. sessile, subcylindricum, rectum, glabrato-viride, polyspermum: stylus unâ tertiâ parte brevior, albus, setaceus, subarrectus: stigma punctum, obtusum, obsoletè 2-fidum.

The first mention of this plant is in the splendid work destined to record the rare plants cultivated in the garden of La Malmaison, edited by Monsieur Ventenat; one of the many costly books which the governments of France, and of some parts of Germany, have enabled their artists and

men of science to give the world. The species is remarkable in its genus for the fine purple-rose-colour of the blossom, which in the others is commonly yellow. It reminds us rather of an *ONONIS* or Rest-harrow, than of what we have been accustomed to regard as a *CROTALARIA*; and is one of the many ornamental vegetables we owe to the late Mr. Masson, who sent the seed from the Cape of Good Hope in 1790.

A woody upright shrub, sometimes, we are told, acquiring the height of six or seven feet; *stem* naked downwards, with a brown smooth bark, upwards contractedly branched, pubescent, grey, leafy. *Leaves* irregularly and loosely scattered, ternate, appressedly villous underneath and on the petiole, above, especially when young, strewn over by a subtle down and reticulately veined; *leaflets* obovate, retuse, reflectent, middle one largest, from three parts of an inch to one and a half long, and then nearly three times the length of the common petiole: *stipules* 2, minute, villous, deciduous. *Racemes* terminal, upright, many-flowered, sometimes extended to near a foot in length, with a round villous *peduncle*; *pedicles* shorter than the corolla, with two minute decurrent bractelets placed one on each side, a little below the calyx. *Calyx* villous, deeply bifid, upper segment truncate and bidentately scooped, lower trifid, with lanceolate lobes, of which the middle one is pointed and stands apart from the other two. *Corolla* about the size of that of *ONONIS rotundifolia*: *vexillum* or upper petal ascendent, round, emarginate, 3 or 4 times higher than the calyx, with a white spot yellow in the disk at its base: *alæ* or side petals of the length of the vexillum, 2 or 3 times narrower, converging over the *carina* or two lower petals which are rather shorter, disjoined, meeting by their edges above, and bowed upwards with a small earlet or lobe on their lower edge at the bend. *Filaments* monadelphously connate. *Germen* sessile, nearly cylindrical, straight, smooth, and many-seeded; *style* about a third shorter, white, setiform, nearly upright: *stigma* an obtuse obsoletely bifid point.

The drawing was made at the nursery of Messrs. Whitley, Brames, and Milne, King's Road, Fulham.

a Calyx. *b* Vexillum. *c* One of the two *alæ*. *d* Side view of the *carina*. *e* Stamens. *f* Pistil or germen style and stigma. *g* A pod.



INGA purpurea.

Purple Inga, or Soldier-wood.

POLYGAMIA MONÆCIA.

Nat. Ord. LEGUMINOSÆ. Jussieu gen. 345.

Div. I. Cor. regularis. Legum. multiloculare, sæpius bivalve, dissepimentis transversis, loculis monospermis. Stam. distincta. Arbores aut frutices; folia abruptè pinnata.

INGA. HERMAPH. Cal. 5-dentatus. Cor. tubulosa 5-dentata. Stam. numerosa monadelphæ. Legum. 1-loculare, seminibus pulpâ vel arillo involutis.

MASCULI. Cal. 5-dentatus. Cor. tubulosa 5-dentata. Stam. numerosa monadelphæ. Willd. sp. pl. 4. 1004.

Div. foliis conjugato-pinnatis.

I. *purpurea*, inermis, foliis conjugato-pinnatis: pinnis quadrijugis: foliolis oblongis obtusis basi inæqualibus, petiolis eglandulosis, capitulis pedunculatis. Willd. sp. pl. 4. 1021.

Inga purpurea. Hort. Kew. ed. 2. 5. 454.

Mimosa purpurea. Linn. sp. pl. 2. 1500. Mill. dict. ed. 8. n. 15.

Hort. Kew. 3. 439. Andrews's reposit. 372.

Acacia frutescens, non aculeata, flore purpurascente, alia. Plum. ic. tab. 10. fig. 2.

Frutex ramosus, ramis flexuosis, badio-corticatis, alternè et remotiùs foliatis. Folia subuncialia, acutè stipulata, conjugato-pinnata, lævia, reticulato-venosa, sub lente ciliolata, petiolo communi partialibus breviorè intùs lanuginoso, bracteolâ ad pedem conjugationis; pinnæ 4-jugæ, foliolis articulato-subsessilibus, obovatis vel oblongis, apice rotundatis cum mucronulo, basi obliquatis, latere inferiore laminæ plurimùm angustiore; parium 2 imorum pinnæ singulæ inæqualissimæ. Pedunculi solitarii, supernè in ramis axillares, erecti, compressi, striati, virides, folia æquantes vel subsuperantes, apice florigeri, versùs medium stipati bracteolis 2 minutis. Flores subhemisphærico-capitati absque pedicellis, excedentes unciam. Cal. herbaceus, tubulosus, corollâ triplo brevior. Cor. tenerior, profundius divisa, citò emarcescens, ferè quinquès brevior staminibus. Stam. 7-9? punicea, pro longitudine corollæ tubuloso-connata, indè distincta. Germ. teres, glabrum; stylus longitudine et colore filamentorum, at crassior, suprâ sæpè cum gyro flexus; stigma punctum obtusum.

INGA, which includes a numerous array of species, has been formed by Willdenow, at the expense of MIMOSA; its chief difference from which, as well as ACACIA, is, that the seeds of its legumes or pod are envelopped either by a coat of pulp or a dry loose covering, termed the *aril*; neither of which are found on the seed of MIMOSA or ACACIA.

The present is a shrub which belongs to the West Indies, and was introduced by Dr. William Houstoun before 1733. It seems even now to be scarce, and is not easily brought to flower. The specimens we have seen, have not exceeded three feet, and been branched nearly from bottom to top. The branches are flexuose, with a brown bark, furnished with alternate widely set leaves. *Leaves* rather more than an inch long, acutely stipulated, conjugately pinnate, smooth, reticulately veined, and when magnified are seen to be minutely fringed, *common petiole* shorter than the two *partial ones*, a small bracte at the junction of the last; each *pinna* or wing has four pair of *leaflets*, which are sessile with a joint, obovately oblong, rounded at the top with a small point, slanting at the base, inner side of the blade far narrower than the outer, leaflets of the lower pair very unequal in size. *Peduncles* solitary, axillary in part of the upper, but not topmost, leaves of the branches, about equal to or rather longer than the leaf, upright, compressed, streaked, bearing the flowers at their top, with a pair of very minute *bractes* placed near their middle. *Flowers* without pedicles, forming by their numerous long crimson red filaments a nearly hemispherically radiant head at the end of each peduncle. *Calyx* herbaceous, tubular, thrice shorter than the corolla. *Corolla* of a tenderer and less permanent substance, deeply cleft; soon decaying, nearly five times shorter than the stamens. *Stamens* 7-10? monadelphously connate for the length of the corolla, then distinct, straight. *Style* of the same length and colour as the filaments, but much thicker, often coiled at the upper part. In some of the flowers of the same head the pistil is generally wanting, as in ACACIA and MIMOSA; which brings these genera within the first order of the twenty-third class of the Linnean system, comprehending such as have fertile and sterile flowers intermixed on the same individual.

The drawing was made last May, at the hothouse of the botanical establishment of the Comtesse de Vandes, Bayswater. It requires to be kept constantly in the tan-bed of the stove.

a The calyx and corolla. *b* The monadelphous body of stamens. *c* The pistil.



Lt. Edwards, del.

Pub. by J. Ridgway 170. Received Aug. 1. 1816.

Smith, sc.

ARCTOTIS maculata.

White tawny-stained suffrutescent Arctotis.

SYNGENESIA POLYGAMIA NECESSARIA.

Nat. Ord. CORYMBIFERÆ. Jussieu gen. 177.

Div. VII. Receptaculum paleaceum. Semen papposum, pappo plumoso aut piloso aut aristato (v. paleaceo). Flores sæpiùs radiati.

ARCTOTIS. Suprà vol. 1. fol. 32.

A. maculata, flosculis radiantibus fertilibus, caule suffruticoso, foliis pinnatifido-lyratis angulato-dentatis, subtùs tomentosis. Willd. sp. pl. 3. 2355.

Arctotis maculata. Jacq. hort. schænb. 3. 67. t. 379.

Arctotis caulescens. Thunb. prod. 165.

Caulis suffruticosus, suprà herbaceo-elongatus, tomentoso-candicans, ramosus, sæpiùs radicans; pedunculis pedalibus, teretibus, striatis, villosis, unifloris, erectis, medio v. cò circitèr stipatis bractea vagà elongato-lineari. Folia plurima, caulina, distantia, lyrata, sinuato-pinnatifida, arachnoidea, suprà subcano-virentia, villis mollibus consita, longiora subdeccemuncialia, lobis distantibus, sinuato-dentatis mucrone calloso in dentibus, terminali majore ipso subtrilobato, lateralibus paucis oblongis obtusis; rachide suprà angustissimâ et intra laminam utrinque subconniventèr assurgentem canaliculato-depressâ. Flores diametro ferè triunciali. Cal. infrà arachnoideus, squamis extimis appendice lineari-subulatâ reflexâ non hirsutâ præfixis, intimis laminâ scariosâ subhyalinâ ovatâ obtusâ. Radius numerosus, fertilis, acutus, intùs ochroleuco-albicans, apice fulvo, basi purpureo-maculatus, subtùs fulvescens aliquandò cum mixtâ purpurâ. Pappus paleaceus, biseriatus, externè minimus. In omni nobis notâ ARCTOTIDE radius floris emarcescit revolutim.

This handsome flower, we are told, has been long in our collections, but not having been distinctly recorded by Miller, or in either edition of the Hortus Kewensis, we are unable to fix the date of its first appearance in this country. It differs from *Arctotis aspera* (fol. 34 of this work) in the colour of the flower, in having a far softer foliage and without the rough pubescence that is perceived in that of the other, and in this not being here undulate or curled at the margin, in having far more unequal lobes and separated by wider intervals, and a very narrow midrib sunk between the sides of the blade nearly as in a channelled leaf; by the appendages of the outer leaflets of the calyx not being hirsute as there; its stem is also less decidedly frutescent or woody, the herbaceous portion of the plant more extensive, and in all those we have seen, radicating.

Stem upright, seldom exceeding two feet and half high with its inflorescence, coated over by a white short down-like frosted silver. *Leaves* lyrate, sinuately pinnatifid, with wide intervals and irregular lobes, soft, greyish green above and covered with soft pubescence, white underneath like the stem, terminal lobe largest and subtrilobate. In mode of growth it is nearly similar to the *aspera* of this work. *Ray* more than two inches across, of a cream-coloured white on the inside, suffused at the points and back with a tawny yellow hue, at the inner base, above the short tubes of the florets, of a blackish purple colour.

A hardy greenhouse plant. Easily increased by cuttings planted out in the open ground. Requires a considerable share of water in the summer months, during which it continues to produce a succession of bloom.

The drawing was made at Messrs. Colvilles' nursery, in the King's Road, Chelsea.

a A floret of the ray, with its germen. *b* A floret of the disk. *c* The calyx dissected vertically, to show the receptacle of the flower.



Syd Edwards del

Bot. by J. Pedunculus, Paris, 1810

Smith sc

ARCTOTIS tricolor.

Dwarf tricolor Arctotis.

SYNGENESIA POLYGAMIA NECESSARIA

Nat. Ord. CORYMBIFERÆ. Jussieu gen. 177.

Div. VII. Receptaculum paleaceum. Semen papposum, pappo plumoso aut piloso aut aristato (v. paleaceo). Flores sæpius radiati.

ARCTOTIS. Suprà vol. 1. fol. 32.

A. tricolor, acaulis: foliis lyratis, repandis, suprà obsoletè villosis, subtùs tomentosis; foliolis extimis calycinis totis linearibus subclavatis erectis tomentoso-candicantibus cum mucrone recurvo.

Arctotis tricolor. Jacq. hort. schænb. 2. 27. t. 159. Willd. sp. pl. 3. 2349. Hort. Kew. ed. 2. 5. 169.

Acaulis, perennis. Folia plurima, radicalia, multifaria, patentissima, 4-5-uncialia, exteriora plura lyrata, repanda, 7-nervia, suprà obsoletè pubescentia, tactui asperiuscula, nervis arachnoidea, subtùs lanà araneosâ candicantia, lobo terminali ovato-oblongo, lateralibus paucis obliquis obtusis integris; interiora pauca erectiora laminâ ovato-lanceolatâ integrâ. Scapi villosi, uniflori, sesunciales ad pedales, bractea vagâ versùs medium positâ. Cal. campanulatus, subarachnoideus, at infrà virescens, et foliolis nonnullis infimis candicantibus instar costarum insignitus; foliola intima subhyalino-scariosa, ovato-lanceolata, subrubentia. Radius 2 uncias transversè excedens, tridenticulato-acutus, intùs ochroleuco-candicans, basi atropurpureo-maculatus, extùs purpurascens. Discus nigricans. Germina radii et serierum aliquarum periphericarum disci fertilia basi sericeo-hirsuta, centraliora sterilia nuda; Pappus serie simplici, paleaceus.

Tricolor differs from *acaulis*, which appeared in the fasciculus of the last month, by a foliage, which is obsoletely villous on the upper side, not covered by a dense rough pile, and by a flower of a different colour; but more decidedly by the remarkable outer leaflets of the calyx, which are narrow linear subclavate recurvedly mucronate and of a frosted white colour; the innermost ones are also more pointed than in *acaulis*.

The curious economy and sensitive property which we observed in the style and stigmas of *aureola* and *aspera*, and described in the 32d and 34th articles of this work, are likewise found in the three species since published, and will be so probably in many, if not all, others of the genus.

Of whatever colour the ray of the flower has been, in the species which have fallen under our notice, the disk has uniformly been of a deep shining blackish brown, previous to the complete expansion of the florets; when it becomes of a dusky opaque green. The first appearance is produced by a tessellated surface formed of small blackish flat protuberances at the backs of the segments of each floret; these lie uppermost before expansion, when the whole plane is gradually broken up by the extrusion of the stigmas, and the backs of the segments being reversed by the unfolding of the limb, the inner surface comes in view in their place.

In the present species the *leaves* are several, all radical, generally lyrate, one or two of the inmost entire with an ovately lanceolate blade, covered beneath by a white cottony pubescence; the short pile on the upper side is more easily perceived by the feel than sight, and scarcely obscures the green colour of the leaf. *Scapes* or *peduncles* from six inches to a foot high, radical, one-flowered, villous. *Flowers* nearly three inches across; ray white on the inside with a purple-black base, on the outside deep purple. The pappus of the seed consists of oblong obtuse paleæ or chaffs placed in a single series.

Native of the Cape of Good Hope; from whence it was introduced by the late Mr. Masson in 1794. Like the rest of its congeners requires to be sheltered in the greenhouse, and planted in a mixture of peat-earth and hazel-loam. Easily propagated by suckers. Blooms from May to July.

The drawing was made at the nursery of Messrs. Lee and Kennedy at Hammersmith.

a A floret of the ray and germen. *b* The same of the disk. *c* The calyx dissected vertically, to show the paleaceous or chaffy plume of the receptacle of the flower, as it appears when deprived of the florets.



Sp. Schumacher, det

Pub. by J. Ridgway 170 Piccadilly Aug. 1. 1846.

Smith, sc

LILIUM pumilum.
Dwarf Lily or Sarana.

HEXANDRIA MONOGYNIA.

Nat. ord. LILIA. *Jussieu gen.* 48.

LILIUM. *Inflo.* sæpiùs pedunculata. *Cal.* 0. *Cor.* infera, hexapetalo-partita, turbinato-campanata, erecta v. cernua, laciniis lanceolatis patentibus v. revolutis, intùs exaratis sulco medio longitudinali nudo v. ciliato. *Stylus* cum *stigmatè* tritoroso-capitato clavatus. *Caps.* cartilaginea, turbinata v. oblonga, trigona, 3-loc., 3-valv., valvis medio septigeris, septis margini internæ utrinque seminiferis. *Sem.* numerosa, plana, discoidea, in loculis cumulata duplici ordine, extrorsùm rotundata, introrsùm attenuata.

Bulbus variè squamosus, nudus, sæpè per rhizoma infrà productum repens. Caulis foliosus, simplex. Folia plurifaria, carnosula, variè lanceolata, nunc radicalia et caulina, nunc sola caulina, nunc sparsa et confertiora, nunc verticillata et distantiora. *Inflo.* terminalis, 1-multiflora in umbellam, corymbum, thyrsum, racemum, v. paniculam disposita, foliaceo-bracteata aut verticillatim cincta, pedunculis 1-floris modò referentibus ramos, rarò divis. *Cor.* speciosa, sæpiùs majuscula. Discrepat confini FRITILLARIÀ ex bulbo squamoso, ex foliis interstinguentibus flores, non superantibus eosdem in comam, exque corollâ non extùs ad basin torosâ nodis senis rèspondentibus cavulis totidem meliferis.

L. pumilum, foliis lineari-subulatis sparsis glabris, floribus reflexis, corollis revolutis intùs glabris. *Redouté liliac.* 378.

Lilium reflexum, montanum humile, angustifolium, Sarana Mungulis in Dauriâ, Messerschm. *Amm. ruth.* 105. n. 138; (nec verò planta cui pro synonymo datur in Gmel. sib.)

Bulbus albus compacto-squamosus ovato-pyramidatus magnitudine nucis avellanæ major. In plantâ frugiferâ folia cuncta caulina, laxius sparsa patetissima carnosula linearia, acuminata, 2-3 uncias longa, vix lineam lata, obsoletè canaliculato-carinata, sub lente pustulis minutis oblongis lucidis creberrimis puncticulata, margine lævia et obtusula. Caulis 6-7-uncialis crassitudine pennæ corvinæ, erectus, nudo spatio summa folia et inflorescentiam interveniente, teres. Flores aurantiaco-coccinei, strenuè gratèque odori, 1-4, umbellati, pedunculis biuncialibus, longioribus corollâ, erectis, apice inflexis, foliis totidem cum pilis paucis deciduis ad basin verticillato-cinctis. *Cor.* cernua, ad basin usque revoluta-reflexa, immaculata, intus striatula, nuda tuberculis omniq.ube; laciniæ lanceolatae, infra medium sulco glabro marginibus cuniculatim conniventibus exaratae, apice lanuginosae. *Stam.* corollæ æqualia, fasciculato-divergentia, pallido-rubentia: *anth.* vibratiles, polline aurantiaco. *Germ.* viride, columnare, tereti-trigonum, æquans stylum rubido-fuscum; stigma capitato-trilobum.

The smallest flowered species yet known of the genus, and quite new in the gardens of this country. A repre-

sensation of it has appeared in a recent fasciculus of Mons. Redouté's work on Liliaceous plants; where it is stated to have then bloomed in the garden of the Museum of Natural History of Paris for the first time, and is surmised to be a native of Peru. But the presumption, in regard to its origin, must have arisen from some mistake. The seed from which the present plant has been raised was derived from Moscow, by way of Berlin. And the species is certainly native of the oriental provinces of Russia, particularly of Dauria, where its roots, as well as that of other species, are eaten, and called Sarana by the Mogul natives. It comes near to *chalcedonicum* and *pomponium*, but differs from both by having a corolla free from excrescences, and by a smooth-edged groove down the segments; as well as from each respectively in other points.

The root is a white bulb, about the size of a blackbird's egg; while barren, producing three or four lorately lanceolate leaves, about half an inch broad, tapered downwards as if petioled. In the fertile plant the foliage is wholly cauline. *Stem* 6-7 inches high, not thicker than a small oaten straw, loosely set with fleshy patent narrow linear pointed leaves from two to three inches long, and little more than a line broad, obscurely carinated or keeled, with a blunt even unciliated edge. *Flowers* odorous, 2-4 in a terminal umbel, surrounded at the base by an equal number of leaves, with a naked interval between them and the uppermost stem-ones; peduncles about two inches long. *Corolla* of an unspotted orange-red or flame colour, cernuous and revolutely reflectent to the base, shorter than its peduncle; the groove in each segment runs from about the middle to the base, and converges at the edge, so as to form a covered channel or pipe. *Germs* green. *Style* and *stigma* reddish brown. *Filaments* red, divergent; *pollen* orange.

A hardy plant. Introduced by Messrs. Whitley, Brame's, and Milne, at whose nursery in the King's Road, Fulham, the drawing was made in June last.

a A barren root, with the foliage. *b* The pistil.



Lysl. Edwardsi, det.

Pub by J. Ridgway 170 Piccadilly Aug. 1. 1816.

Smith sc

CONVOLVULUS suffruticosus.

Shrubby Madeira Bindweed.

PENTANDRIA MONOGYNIA.

Nat. ord. CONVULVULI. Jussieu gen. 132. Div. I. Stylus unicus.
 CONVULVULACEÆ. Brown prod. 481. Sect. I. Ger-
 men unicum.

CONVOLVULUS. Cal. 5-partitus, nudus, v. bracteis 2 mino-
 ribus imbricatus, persistens. Cor. 1-petala, hypogyna, regularis, cam-
 panulata, 5-plicata, limbo 5-lobo, decidua. Stam. imæ corollæ inserta,
 ejusdem laciniis alterna, limbo breviora. Germ. 2-loc. (rarò 3-loc.?),
 loculis dispermis; basi cinctum glandulâ annulari. Stylus indivisus.
 Stig. 2, filiformia. Caps. valvata, valvis margine appositis angulis dissep-
 imenti liberi basi seminiferi. Herbæ (rarò frutices) volubiles v. prostratæ,
 sæpiùs lactescentes. Folia alterna, exstipulata. Brown prod. 481, 482.

Div. Caule volubili.

C. suffruticosus, foliis oblongis subcordatis acutis, caule suffruticoso
 lævi, pedunculis trifloris multiflorisque. Dryander in Hort. Kew. ed.
 2. 1. 331.

OBS. Omnino diversus à Convolvulo suffruticoso Desf. fl. atl. et Per-
 soon syn. qui species non volubilis.

Caulis teres, viridi-fuscescens, ramosus, conspersus lanugine rarâ atque
 vix manifestâ. Folia saturatè viridia, oblongo-cordata, acuminata, utrinque
 [suprà appressè] subvillosa, infrà varicoso-nervosa, longiora triuncialia: petio-
 lus 3-plo brevior, villosus. Pedunculi axillares, villosuli, superantes petio-
 lum, breviores folio, sæpiùs trichotomo-triflori, sub trichotomiâ bibracteati,
 nunc divisi ultrâ atque multiflori. Cal. triplo brevior corollâ, herbaceus, venosus;
 foliola supernè patentia lata cum brevi acumine et ciliata. Cor. tota quantâ
 usque ad calycem rotato-dispansa, uncias ferè binas transversa, alba, flavescens
 in disco, ad plicas lineis 5 purpureis aliis totidem externis villosolanceolatis
 respondentibus radiata, obsoletè 5-gona, 5-quiès emarginata: junior involuta
 tota extùs sericeo-hirsuta. Stam. duplo ultrâ breviora corollâ, fasciculata,
 infernè barbata: anth. sagittato-lineares, ochroleucæ. Germ. pyramidatum,
 albicans, glabrum: stylus bisulco-filiformis (quasi ex duobus conferruminatus),
 apice brevè bicurvis: stig. 2 filiformia, albida, cruribus styli pedicellata.

A species introduced from the island of Madeira by Mr. Masson in 1788; but does not appear in the first Hortus Kewensis, and is only recorded in the late edition of that work. It affords a very decisive sample of the difference of the stigma of its genus and that of IPOMÆA, now the main point of distinction between the two, as has already been noticed in the sixty-second article of this work. It is also an instance, among numerous others, by which we see the herbaceous genera of the colder climates assuming

the garb of shrubs in their advance to warmer regions, where in the hottest we find them sometimes converted into vast trees, as in the papilionaceous division of Jussieu's order of Leguminous plants.

In the specimens we have seen, our plant forms a slender twining shrub, of the height of three or four feet. The foliage is of a deep green, elongatedly cordate tapered to a point, measuring three inches at the longest, very slightly pubescent on both sides, on the upper appressedly so; *petioles* scarcely one third of its length. *Inflorescence* on three-flowered *peduncles*, sometimes subdivided and with more flowers, shorter than the leaf. *Calyx* three times shorter than the flower, spreading above the middle, where the leaflets are broad and ciliate. *Corolla* white, with a yellow disk and five purple lines answering to the same number of broader villous ones on the outside, flatly expanded down to the short tube within the calyx, less than two inches across, obsoletely five-cornered; while rolled together, the whole exterior is covered with a hirsute pubescence. *Stamens* bearded downwards. *Style* filiform, with a double groove, as if composed of two grown together, shortly forked at the top, each point holding a white filiform *stigma*. *Germen* smooth.

A hardy greenhouse plant, of the easiest culture. Multiplied by cuttings. Flowers in June and July. The drawing was made at the nursery of Messrs. Whitley, Brames, and Milne, King's Road, Fulham.

a Calyx. *b* Lower part of the corolla dissected vertically. *c* Pistil.



Spil. Edwards del. Col. by J. Audquoy 170. Breckinley Aug 1. 1890

Smith Sc.

PAPAVER floribundum.

Armenian Poppy.

POLYANDRIA MONOGYNIA.

Nat. ord. PAPAVERACEÆ. Jussieu gen. 235.

Div. I. Stamina (hypogyna) indefinita; antheræ filamentis adnatæ.

PAPAVER. Cal. diphyllus, caducus. Pet. 4. Germ. 1; stylus 0; stigma radiatum persistens. Caps. 1- (s. incompletè multi-) loc., polysperma, ovata aut oblonga, pluribus instructa receptaculis [totidem quot radii stigmatis] seminiferis, ad parietes intùs prominulis, dehiscens ad apicem sub singulo radio totidem foraminulis infrà univalvibus. Sem. numerosissima. Herbæ. Folia alterna. Flores solitarii terminales; succus lacteus. Jussieu gen. 236.

Div. Capsulis glabris.

P. floribundum, foliis imis pinnatis superis pinnatifidis, villosis, incis; ramis floriferis axillaribus et terminalibus; pedunculis unifloris; capsulis glabris, oblongis. Desfont. in ann. du mus. 11. 376. t. 33.

Papaver orientale, tenuitè incisum, ad caulem floridum. Tournef. cor. 17.

Herba perennis? 1-2-pedalis, glauca. Folia setis erectis sparsis exsiccatione flavescentibus hispida; radicalia plurima, basi imbricata, multifaria, subtriuncialia, oblongata, de medio petioli impari-pinnata, pinnis oppositis decrescentibus subtrilobo-pinnatifidis proximis obliquatis subundulatis, lobis inæqualitèr incis, lobulis præfixis setâ longiore; petiolus subtùs et margine pilosus, suprâ planiusculus: caulina distantia, tandè sessilia, dein meræ bractæ. Caulis patenti-paniculatus, robustus, flexuoso-erectus, teres, lævis, setis vagis rarissimis conspersus, rami axillares et terminales, divisi in pedunculos 3-5 filiformes unifloros suffultos bractea foliaceâ, summi corymboso-fastigiantes simpliciores nudiores. Flores ante anthesin pendulo-nutantes, dein erecti. Cal. obovato-ellipticus, ovo passerino minor, setis confertim echinatus, modò parcius, vel omninò depilis. Cor. uncias tres transversa, miniato-splendens, petalis subquaternis, obovato-rotundatis, plicato-corrugatis, margine summâ eroso-repandis. Stam. ochroleuco-pallida. Germ. virens, ovali-oblongum, deorsum contractum; stigma violaceum, 4-6-radiatum, velutinum.

Found by Tournefort in Armenia, and registered by him in the Corollary of his Institutes under a short specific phrase, meant, like the others in that work, for mere titles to correspond with his Herbarium and the drawings by Aubriet, the artist who accompanied him during his travels in the Levant. But it was the intention of this accomplished naturalist to have given the world a work, consisting of descriptions and further history of the plants contained in this Prodrômus or Index; when his purpose was defeated by a premature death. Thus the principal part of

the plants he had enumerated were left to be ascertained only by access to unpublished documents. Within these last few years this want has been in part supplied by Prof. Desfontaines, who has published engravings of a judicious selection of the drawings, and descriptions from the original specimens of the Herbarium, in the *Annals of the Museum of Natural History at Paris*. Among the figures is one of the present species, of which there is a specimen from Tournefort's Herbarium in that of Sir Joseph Banks.

It now makes a first appearance in the collections of this country, having been raised by Messrs. Whitley, Brames, and Milne from seed received through Berlin from Moscow, at which last place several extensive botanic gardens have been lately formed by some of the principal inhabitants. Through these means many rare and curious oriental vegetables, well suited to our climate, might be easily obtained.

We are not certain whether the species is perennial or biennial. We know of none that approaches it in the abundance of bloom. The foliage is about three inches high, of a glaucous or blueish white hue; thinly hispid, with upright hairs, a longer bristle terminating each lobe of the leaflets of the pinnated leaves, these turn yellow in the dried plant. The *stem* is from one to two feet high, of the thickness of a common pen, and branched from near the base to the summit, smooth or with a few straggling bristles, *branches* often divided. *Corolla* three inches or more across, salmon-coloured. *Germen* green, smooth, oval-oblong, narrowing towards the base: *stigma* violet-purple, conical, varying from with 4 to with 6 rays. *Stamens* pale straw-colour.

The drawing was made in June, at the garden of the above-mentioned nurserymen, in the King's Road, Fulham.



Nyl. Schwartz del

Publ. by J. Ridgway Nicot. Aug. 1 1896

Smith sc

TRITONIA refracta.

Reflex Tritonia.

TRIANDRIA MONOGYNIA.

Nat. ord. ENSATÆ. Linn. et Nobis in Ann. bot. 1. 219.

IRIDES. Jussieu gen. 57. IRIDEÆ. Brown prod. 302.

TRITONIA. Inflor. alternè spicata, distincta spathis bivalvibus conduplicatis unifloris non aristato-laceris. Cor. supera, infundibuliformis sæpè resupinata; limbus variè patens, sexpartitus, æqualis vel inæqualis, regularis v. irregularis, brevior v. longior tubo, fauce inflatâ vel angustâ turbinatâ. Stam. summo tubo infra faucem posita, contigua v. divergentia, inclinata rariùs trifariâ erecta: anth. à dorso pensiles v. incumbentes. Stylus filiformis. Stig. 3, membranosa, canaliculato-lineararia, replicata, rarè bifida. Caps. pergaminea, ovato-rotunda oblongave, tritorosa, triloc., trivalv., valvis medio septigeris margine internâ utrinque seminiferis: sem. globosa variève pressa, magnitudine ferè Sinapeos: albumen corneum.

Bulbo-tuberis nucleus castaneo-carnosus, frugifer quotannis renovandus, indusiis perennantibus membranaceis nervosis involutus, nunc per fila rhizomatosa tuberipara repens. Folia plura, collateralibifaria, gramineo-ensata. Caulis culmaceus, nunc polystachio-ramosus. Flores majusculi, sæpiùs secundo-inflexi, ferè semper intra labium inferius navis (nectarostigmatibus) trinis discoloribus sæpè in callos totidem compressos sublevatis insigniti. Nobis in Ann. bot. 1. 227; et in Curtis's magaz. 1275. HOUTTUYNIA. Houtt. nat. hist. 12. 448; ejusd. Pl. syst. 11. 522. MONBRETIA. Redouté liliac. 53. HEXAGLOTTIS. Ventenat decas gen. pl. 6. n. 3. Differt confini SPARAXIDE, præprimis spathis non aristato-laceris; GLADIOLO, seminibus non alatis; IXIÂ, tubo corollæ ultra insertionem staminum in faucem continuato.

T. refracta, spica reflexa; corollis erecto-secundis, resupinatis: tubo infundibuliformi, longiore limbo semiringente ecalloso; staminibus ascendentibus; stigmatibus bifidis.

Tritonia refracta. Nobis in Ann. bot. 1. 228, et in Curtis's magaz. 1275, verso fol. absque tabulâ.

Gladiolus refractus. Jacq. coll. suppl. 26. ic. rar. 2. t. 241. Vahl enum. 2. 109. Redouté liliac. 419.

Gladiolus resupinatus. Persoon syn. 1. 45.

Folia angustius ensata, glauco pulvisculo irrorata, erecta, interiora longiora sesquipedalia, ima breviter vaginantia purpurascentia, caulina ramos amplectentia. Caulis bipedalis strictus, gracilis, remotè divaricato-subpaniculatus, infra spicam supra folia refractus, 3-4-stachyus. Spicæ simplices, reflexæ flexuosæ, secundæ, laxius sub-7-floræ. Flores fragrantés, arrecto-resupinati, sesquiunciales. Spathæ brevissimæ sphacelato-albicantes, æquivalves, purpureo-striatulæ, acutæ, valvâ posticâ bifidâ. Germ. oblongum, breve, rotundato-trigonum. Cor. viridi-flava, infundibuliformis; tubus gracilis tereti-trigonus, continuatus in faucem longiorem turbinato-campanulatum fundo intus flavicantem et suprâ flavo-trimaculatam; limbus subinæ-

qualis bis brevior tubo cum fauce, laciniis ovatis; labium summum erectum, collateraliter-divergens, concolor, laciniis lateralibus posticè versùs obliquatis, mediâ latiore subcordatâ; labium imum reflexum, connivens, subbrevis et depressius, maximâ parte intensè flavescens, laciniis 3 striâ mediâ purpureâ lanceolato-linearî verticali pictis, utrinque inflexis, mediâ duplo angustiore at æquilongâ cæteris. Anth. ochroleucæ, fauce brevè emicantia, basi sagittatæ, à dorso verticali-pensiles. Stig. albida, decurva, bifida, apiculis eroso-laceris.

TRITONIA may be always known from IXIA, by a tube which is enlarged to a broader faux, below which the stamens are inserted, not as in IXIA, immediately at the foot of the limb; from GLADIOLUS and BABIANA by seed, which is neither alate (winged) nor baccate (berried); from SPARAXIS, to which it comes the nearest, by closer fitting unlacerated spathes. In colour and inflection of the limb it is variable, like other genera of the order.

The present is one of the rarest species of the tribe; and, as far as we can trace, has been now first introduced from the Cape of Good Hope by Messrs. Lee and Kennedy of the Hammersmith nursery, where the drawing was made in June. The *stem* or *culm* is from a foot and half to more than two feet long, of the size and appearance to be expected in a grass of the same stature, divided into three or four divaricate distant branches, each terminated by a spike of about 7 flowers as well as itself. The foliage consists of several grassy slightly glaucous narrow *leaves*, equitant and sheathing below, facing each other by the edges of the blade, reaching to the base of the uppermost spike. *Flowers* fragrant, inverted, about an inch and half deep, of a pale greenish yellow colour, mottled with a deep orange yellow within the faux, and at the sides of the segments of the lower lip. *Spathes* very small, white, when viewed near streaked with purple, scarcely higher than the germen they enclose. *Stamens* ascendent, scarcely surmounting the orifice of the faux. *Stigmas* bifid, with uneven tips.

A hardy greenhouse plant; requiring to be kept in peat-earth, and to have the bulbs taken up, and the offsets removed at least every second year.

a Corolla dissected vertically. *b* Pistil.



Lyd Edwards del

Pub. by J. Ridgway, 170 Piccadilly, Sept. 11 1816

Smith sc

PRUNUS prostrata.

Birch-leaved Mountain Plum.

ICOSANDRIA MONOGYNIA.

Nat. ord. ROSACEÆ. Jussieu gen. 334.

Div. VII. Germ. unicum superum monostylum. Nux mono- aut disperma, nuda aut sæpius drupacea. Arbores aut frutices. AMYGDALÆÆ.

PRUNUS. Suprà vol. 1. fol. 27.

P. prostrata, pedunculis geminis, foliis ovatis inciso-serratis eglandulosis subtùs tomentoso-albicantibus, caule prostrato. *Labillard. syr.* 15. t. 6.

Prunus prostrata. *Willd. sp. pl.* 2. 997. *Smith prodr. fl. græc.* 1. 340. *Hort. Kew. ed.* 2. 3. 199.

Amygdali incanæ, var. *Pallas ross.* 1. 13. tab. 7; *unicè tamen quoad figuram à sinistris tabulæ; aliæ ambæ enim sunt reverà Amygdali incanæ.*

Prunus cretica montana minima humifusa, flore suave rubente. *Tournef. cor.* 45.

Frutex humilis, ramosior, ramis sæpiùs deflexo-prostratis, cortice nigro-fuscescente glabro. Folia ovato-rotunda, utroque fine attenuata, eglandulosa, nervosa, serrata, suprà villosiuscula, subtùs tomentoso-albicantia, tertiam unciaè partem circitèr longa, brevissimè petiolata: stipulæ parvulæ lanceolata. Flores subgemini, subsessiles, axillares, vix æquantes folia, roseo-rubentes. Cal. tubulosus, 5-fidus, extùs villosus, segmentis stellatis subcoloratis lanceolato-oblongis, 2-3-plò angustioribus petalis, intùs albo-barbatis. Pet. rosacea, subrotunda, ungue brevissimo, vix longiores segmentis calycinis. Stam. 20-24 subexserta, erecta, calyci inserta serie alternè duplici: anth. peltatæ, rotundæ, flavescentes, inflexæ. Germ. viride, ellipticum, compressum, subnudum: stylus exsuperans antheras, filiformis, strictus, rubidus, infernè lanatus: stigma unilaterale, obliquum, lobiformi-dilatatum, concavum. Drupa (*dicante Labillardière*) ovata, rubra, pulpâ perpaucâ obducta: nux ovata, suturis vix prominulis.

Looking at the blossom, we should have thought this species had ranked under AMYGDALUS. But the limits between that genus and PRUNUS are decided by the stone of the fruit; the shell of this in the first genus is punctured at the outer surface by numerous small holes, nearly as fine as pores; a feature which is not found in the latter, the shell of which is distinguished by the prominent sutures of the margin. And those who have had the opportunity of examining the fruit of our plant, have found it to belong to PRUNUS.

Native of particular mountains in the Levant; of Ida in the island of Crete, of Parnassus, and of Lebanon, where it is said to grow in a region elevated 1000 fathom above the level of the sea, spreading itself along the ground, which it covers with its lively peach-coloured bloom, as soon as the snow has completely disappeared from the spot. The Chevalier Pallas received samples of it from the neighbourhood of Teflis, the capital of Georgia in Asia, but seems to have mistaken it for a variety of *AMYGDALUS incana*, along with which he has figured it in the same engraving. The wood of the bush has much the appearance of our common sloe; nor is the foliage thoroughly the almond kind, and the species may be looked upon as one of the connecting links between that genus and the plum.

The specimens we have seen have been about 3 feet high; the *stem* not procumbent, as described to be in its native abode, but had long branches which were so bent as to lie along the ground. The *foliage* is of a round oval form, tapered at each extremity, not more than one third of an inch long, nerved, serrate, clothed with white down on the under surface, obsoletely petioled. *Flowers* generally in pairs, scarcely equal to the leaves, nearly sessile. *Calyx* tubular, with stellately expanded segments, which are bearded on the inside. *Petals* roundish, 2-3 times broader, but scarcely longer, than the segments of the calyx. *Stamens* 22-24, alternating in two rows, one above the other, upright, longer than the corolla: *anthers* round peltate. *Germen* nearly smooth, green: *style* higher than the stamens, reddish, upright, bearded below: *stigma* unilateral lobe-shaped. According to M. Labillardière, the plum is ovate and red, with a very thin coat of flesh, and a stone in which the sutures have scarcely any projection.

Introduced by Mons. Cels in 1802. Hardy. Flowers in April and May.

The drawing was made at the nursery of Messrs. Lee and Kennedy, Hammersmith.

a The calyx dissected, to show the insertion of the stamens. *b* The pistil.



Lyd. Edwards del.

Pubby J. Putnam 170 Piccadilly Sept. 1. 1846.

Smith Sc

CACTUS gibbosus.

Mr. Vere's Melon-Thistle.

ICOSANDRIA. MONOGYNIA.

Nat. ord. CACTI., *Jussieu gen.* 310.*Div. II.* Petala et stamina indefinita.

CACTUS. *Cal.* urceolatus aut longior tubulosus, squamis numerosis appendiciformibus sæpè imbricatis tectus, suprà germen deciduus. *Petala* numerosa multiplici serie, summo calyci inserta, basi subcoalita, interiora majora. *Stam.* ibidè inserta paritè infrà coalita, antheris oblongis. *Stylus* longus; *stig.* multifidum. *Bacca* infera, umbilicata squamularum vestigiis exasperata, 1-loc., ad parietes seminifera; polysperma seminibus in pulpâ nidulantibus. *Arbores aut frutices, pingues, formâ varii sæpiùs aphylli et articulati, plerùmque obducti spinis fasciculatis et pilis in singulo fasciculo intermixtis. Opuntix stamina titillatione irritabilia. Jussieu gen.* 311.

Div. Echinomelocacti, *subrotundi.*

C. gibbosus, oblongiusculus, 16-angularis; spinarum fasciculis in unâ serie jugis costarum, alternantibus cum tuberculis totidem nudis elongato-mammosis et compressiusculis.

Cactus gibbosus. *Haworth pl. succ.* 173.

Turbinato-cylindricus, sordidè virens, parùm excedens 3 uncias, diametro 2 cum dimidio, costato-angulatus; costæ longitudinales è tuberculis obesis depressis coronatis areolâ planâ fusco-tomentosâ spinis sub-7 validissimis acicularibus serie simplici fasciculato-divergentibus (junioribus albo et fusco variis) armatâ, et ex aliis alternis macrioribus compresso-mammillaribus glabris inermibus atque plurimùm prominentioribus; in summo vertice floriger, depressus, tuberculis armatis orbatus et mammillaribus diminutis tessellatus. Flores (hîc 2) axillares in fasciculis spinarum costas terminantium, solitarii, fermè triunciales, inferiùs calycinî virentes, superiùs petalinî sordescentes et pallidescentes, intùs candicantes, inodori. Cal. cylindricus squamis obtusis appressis albidis dissitè sparsis consitus, ubi recondit germen parùm pennâ majore crassior uncialis persistens, ultrà deciduus. Petala numerosa obcuneato-ligulata mucronato-obtusa, basi coalescentia, interiora longiora, vix latiora. Spinæ recentius enatæ profectò Erinacei similes; seniores deperdunt coloris variegationem.

A species not yet received into any general enumeration of vegetables, nor till now known to botanists by the inflorescence. It has been cultivated in the hothouse of Mr. Vere, at Kensington Gore, from before 1808, and flowered in June last, for the first time. This gentleman's gardener informs us, that it was raised from seed received from Jamaica by Messrs. Lec and Kennedy, of the Ham-

mersmith nursery. It belongs to the section of the Genus arranged under the appellation of "*Echinomelocacti*," or "Melon-Thistles," from the form and armature of the species of which it consists. Some of these strange-looking vegetables are said to exceed two yards in girth in their native places, and are composed of a succulent green flesh of one consistence throughout. In times of drought they are known to be sought for by the cattle, who after stripping off their spiny covering with their horns, devour them greedily. The entire genus, with the exception of *C. Opuntia*, common to both Europe and America, is spontaneous in the West Indian Islands, and the warmer parts of the american continent; where its numerous and multiform species are said to grow from fissures in the sides of the steepest rocks. The fruit (or fig or pear, as it is sometimes called from its shape) is esculent in most of them.

The present specimen, the only one we have seen of the species, was not much more than three inches high, of an oblong cylindrical form, depressed at the summit, somewhat narrowed towards the base, and had 16 angles or ribs. Each rib or angle consists of a vertical rank of tubercles of two different forms, alternating one with the other, one sort having a depressed tomentose crown, armed with a divergent fascicle of about 7 or 8 horny acicular thorns, the other sort narrower, free from all pubescence and armature, and projecting much beyond the other. The *flowers* spring from the axils of the uppermost thorny fascicles, which terminate each rib at the outer edge of the depressed thornless tessellated area of the summit of the plant; these in this instance were two, nearly 3 inches in length, externally of a reddish or liver-coloured green, internally white, scentless. *Corolla* composed of numerous obcuneately ligulate petals, arranged in several imbricating ranks. *Germen* about an inch long enclosed within the green cylindrical outwardly loose-scaled persistent calyx.

a A flower dissected vertically, to show the stamens, style, stigmas, and the interior of the germen enclosed in the persistent tubular portion of the calyx.



Typ. Edwardes del.

Det. by J. Ridgway 170. Pac. Rly. Sep. 1 1896

Smith del.

LONICERA dioica. β .

Glaucous american Honeysuckle with tawny flowers.

PENTANDRIA MONOGYNIA.

Nat. ord. CAPRIFOLIA. Jussieu gen. 210.

Div. I. Calyx calyculatus, aut bracteatus. Stylus unicus. Corolla monopetala.

LONICERA. Suprà vol. 1. fol. 31.

Div. Periclymena, caule volubili.

L. dioica, verticillis subcapitatis bracteolatis, foliis deciduis subtùs glaucis: summis connato-perfoliatis, corollis ringentibus basi gibbis. *Hort. Kew.* 1. 230.

Lonicera dioica. *Linn. syst. veg.* 13. 181. *Hort. Kew. ed. 2.* 1. 377.

Lonicera media. *Murr. in nov. comm. gott.* 1776. 28. t. 3. *Idem in Linn. syst. veg. ed.* 14. 216. *Schmidt arb. t.* 109.

Lonicera parviflora. *Persoon syn.* 1. 213.

Caprifolium parviflorum. *Lamarck encyc.* 1. 728. *Pursh amer. sept.* 1. 161.

Caprifolium bracteosum. *Michaux bor. amer.* 1. 105.

Frutex 3-4-pedalis trunco brevi epidermide lacero-rimosâ; ramosus, undique glaucissimus, nisi in facie supinâ foliorum. Pedunculi erecti, terminales. Flores verticillati, verticillis 2-4 subcapitatim approximatis, patentibus, bracteae communes 2 sub quoque verticillo latae, brevissimae; partiales 2 minimae sub quoque germine. Germina sessilia, conferta. Cal. exiguus obsoletè 5-dentatus. Cor. purpureo-fulvescens, brevis vix aequans $\frac{3}{4}$ partes unciae, obliquato-ringens; tubus crassus, nervosus, basi anticè didymo-gibbosus; limbus 5-divisus, labio summo 3-fido ascendente margine revolutò, imò 2-partito laciniis divaricatis, spiralitèr convolutis. Stam. (modò sena) divergentia, exserta, incurvata, summa breviora; fil. alba, tubo adnata et tota intra eum pilis rarioribus erectis barbata, extra cum nuda. Stylus longè exsertus subuncialis, virens, filiformis: stig. pileato-capitatum. Folia decidua, distantia, patentissima, ovato- v. elliptico-oblonga, 3-6-uncialia latitudine sesqui-triunciali, subtus glauco-albicantia, florale distans floribus connato-perfoliatum, caetera sessilia, opposito-contigua. (Bacca ovato-oblonga, phoenicea, umbilicata, carne dulci viscosâ, monosperma. Sem. ovato-oblongum, compressum, inaequale, luteum.)

A hardy deciduous twining shrub, native of North America, where, according to Mr. Pursh, it is found from New England to Carolina. Although introduced by Mr. Peter Collinson as far back as 1766, by no means common in our gardens. A peculiarly glaucous hue distinguishes it from most others of the genus; but its claims to our attention either in point of ornament or fragrance are very slender, variety and curiosity are the principal inducements for

giving it a place any where. The flowers are sometimes yellow, and not of a tawny purple, as in the present sort; which is however the only one we have seen. It has been called *media*, by Professor Murray (who was not aware that it was the *dioica* of Linnæus), from having a corolla of a length between that of the others of the two sections into which the genus is divided, viz. the *Periclymena* and the *Chamæcerasa*. Nor can we account for the name of *dioica*, upon better grounds; technically it should indeed imply, that the species had flowers with only stamens, and others with only pistils, on distinct individuals. But as this is not the case here, we are induced to suspect, that *dioica* was meant in this instance to designate a species with a flower, partaking of the nature of that of both the above divisions of LONICERA. Michaux's name of *bracteosum* has been suggested by his assuming the large connate leaf nearest the inflorescence for its bracte or involucre; but the real bractes being all very small and inconspicuous, it is a name too liable to mislead, and certainly inexact.

The specimens we have seen have not exceeded four or five feet, with a very short stem or trunk, dividing into several branches, and having an epidermis splitting in longitudinal clefts. The leaf nearest the flower is connate and perfoliate, those below sessile and opposite, ovate, oblong, entirely patent, from three to six inches long, white underneath; *peduncles* terminating the branches and branchlets. *Inflorescence* distant from the nearest pair of leaves, and consisting of 2-4 capitately approximated several-flowered whorls, with two shallow broad *bractes* below each. The *corolla* is little more than half an inch long; tube thick short didymously protuberant outwards at the base; the two segments of the lower lip of the limb divaricate and rolled spirally. *Filaments* pubescent. *Berry* orange-scarlet.

The drawing was made at the nursery of Messrs Whitley, Brames, and Milne, King's Road, Fulham.



Syd Enduraels del. Pub^d by J. Ridgway 170 Piccadilly Sept 1st 1816



Smith South

AMARYLLIS coranica.

Corana Amaryllis.

HEXANDRIA MONOGYNIA.

Nat. ord. NARCISSI. Jussieu gen. 54. Div. II. Germen inferum.

AMARYLLIDÆ. Brown prod. 290.

AMARYLLIS: Suprà vol. 1. fol. 23.

A. coranica, foliis bifariis alternè utròque versùs falcato-obliquatis serrulatis; scapo plano duplo altiore umbellâ numerosâ; corollis regularibus infundibuliformibus revolutis. duplo longioribus pedicellis: tubo duplo breviorè limbo.

Bulbus ovato-sphæricus, diametro sæpè novemunciali, integumentis nervoso-membranaceis ferè innumeris externè versùs in crustam crassam duram et fragilem conferruminatis tectus. Folia 6-12, lorata, sesuncialia ad bipedalìa, maximum sesquiunciam lata, glauca, suprà convexiuscula et striata. Scapus lateralis, inclinatus, plano-anceps, glaucus. Spatha bivalvis, ovato-lanceolata, sphacelata. Flores 20-40, laxius et convexius umbellati, successivis vespèris dispendentes, odorati, purpureo-pallescentes at subtristè et opacè: pedicelli teretes, subunciales, ramentis bracteaceis interstincti, neque ac in BRUNSVIGIA cum fructu clavato-elongandi. Germen breve, oblongum, rotundatum, polyspermum, ovulis 15 circitèr in singulo loculo biserialitèr congestis. Corollæ tubus subuncialis, rotundato-trigonus, fauce nudâ; limbus eodem duplo longior, turbinato-campanulatus, supernè revolutus, laciniis ad basin usque distantibus, lineari-lanceolatis, subæqualibus, lineas 2 circitèr latis, alternis hamato-apiculatis. Stam. $\frac{1}{2}$ parte breviora limbo, erecto-divergentia: fil. ori tubi imposita, corollæ concolora: anth. lineares, post anthesin lunulato-curvatæ, incumbentes, vibratiles. Stylus filamentorum concolor, tristriato-filiformis, parùm attenuatus, inclinatus, stori æqualis: stig. punctum obtusum.

Besides being new and ornamental, the present species has a claim to our interest as the first fruit offered to the public from the long and arduous expedition of Mr. W. J. Burchell. This meritorious traveller has recently returned to his country after an absence of more than five years, four of which have been unremittingly occupied in exploring the regions adjoining the settlements at the Cape of Good Hope, in such directions and for such distances as have enabled him to investigate vast tracts not visited by any European. Zeal for science prompted the undertaking, and his own purse has defrayed the expense of it. He is now preparing a narrative for publication from the sources of a very copious journal. This will be followed by a separate work devoted wholly to natural history;

in each branch of which his collections are ample, but most extensive in Botany and Zoology: A map will prove the attention that Geography has received at his hands. The landscapes, portraits of the natives, and drawings of the various objects of his attention are both skilful and numerous. So that taking into account the industry and acquirements of this gentleman, we may justly expect one of the most instructive and amusing books which have appeared.

The following are the memoranda with which he has obliged us concerning the subject of this article. "I discovered this beautiful plant in the Corana country, in the interior of Africa, several days' journey beyond the Orange river, in the latitude of 28 degrees south. It grew in a grassy plain of sand, in such profusion as to remind me of a vast bed of choice flowers. The air was perfumed by an odour from the blossom resembling that of the Tuberose. It begins to open its flowers in succession about sunset, and continues in beauty for about a week or fortnight. The bulbs as they stood when I found them were nearly nine inches in diameter, of a spherical form enveloped in a coat formed by innumerable integuments, the outermost of which were grown together into a hard brittle mass, forming the exterior bark. From an estimate of the number of the integuments, I should judge the larger bulbs the growth of not less than 200 years, probably of 300. When divested of the external exuviae, the live part does not exceed $4\frac{1}{2}$ inches in diameter. Notwithstanding those I have brought home have been 3 years and 3 months out of ground, they are now growing in my garden in as flourishing a state as on their native spot, and have flowered in perfection. In their own climate the bloom is produced in December, and it is not unworthy of remark how readily they have yielded to the reversal of the seasons in this part of the globe by flowering in June."

AMARYLLIS coranica (the specific appellation of which we have adopted from Mr. Burchell) has considerable affinity with *BRUNSVIGIA falcata* (*Curt. Mag.* 1443), but is much smaller in the bloom, which is also revolute; nor are the peduncles angular or continuously and clavately elongated with the ripening fruit. But the most material difference, and that which distinguishes the genera, is, that

here the capsule is short rounded, many and closely seeded, full, and swollen abruptly above a round peduncle; but there, long turbinate acutely triangular few and tuberously seeded, always in great part empty, and equably continuous with an angular peduncle. In foliage, however, they tally exactly; this in both is bifarious lorate glaucous and falcate or bent at the edge like a scythe, and towards each side alternately, with a slender finely serrulate membranous margin. Our plant recedes from the other also in the following features: the *scape* is flat acutely ancipital, more than twice as long as the inflorescence and inclined. *Flowers* sometimes 40 in the umbel, of a dull palely shaded rose-purple, not four inches long with the peduncles. *Tube* obtusely trigonal, about twice as short as the *limb*, which is regular turbinate campanulate and revolute at the top, with narrow lanceolate segments keeping apart down to the base. *Stamens* a third shorter than the limb, upright and divergent. *Stigma* an obtuse point. *Germen* shortly oblong, rounded, even, nerveless, and replete with seed.

The drawing was taken from a plant in Mr. Burchell's garden at Fulham.

NOTE.

In the 1217th article of Curtis's Botanical Magazine (one for which we are responsible), it is observed, that *HÆMANTHUS toxicarius* was defective in a principal feature of that genus, but that the fruit being then unknown, its removal to another place might be as well suspended. We have now seen its fruit in Mr. Burchell's Herbarium, and find it to be the genuine triquetrally lobed few-seeded membranous capsule of *BRUNSVIGIA*, with which genus the plant agrees also in habit, and in which it should certainly be included.



Lyt. Edwards. del.

Lab by J. Ridgway 170. Piccadilly. Sept. 1. 1816.

Smith. R.

SOLANUM decurrens.

Decurrent-leaved Nightshade.

PENTANDRIA MONOGYNIA.

Nat. ord. SOLANÆ. Jussieu gen. 124. Div. II. Fructus baccatus.

SOLANÆ. Brown prod. 443.

Div. I. Corolla limbo sæpius plicato. Stamina numero laciniarum. Embryo valdè curvatus. SOLANÆ VERÆ. Brown loc. cit.

Subdiv. A. Pericarpium baccatum. Id. eod. loc.

SOLANUM. Suprà vol. 1. fol. 71.

Div. Aculeata.

Sub-div. Corollis 5-fidis, baccis calyce aucto et aculeato tectis. Antheris æqualibus.

S. decurrens, caule fruticoso villosa aculeato, foliis pinnatifidis, laciniis acutis, sinuato-dentatis, racemis cymosis lateralibus terminalibusque.

Dunal solan. 232. n. 195. t. 3. D.; (sub *S. Balbisii*).

Solanum decurrens. Balbis ic. et descr. fasc. 1. 17. t. 1.

S. Balbisii. Dunal loc. cit. Poiret suppl. encyc. Lamarck. 3. 776. (sub Morelle de Balbis.)

S. brancæfolium. Jacq. ecl. 14. t. 7.

S. sisymbriifolium. Lamarck encyc. 4. 307. n. 83. Illust. gen. 2386.

Persoon syn. 1. 228. Dunal solan. 232.

Frutex modò orgyalis, erectus, viscido-hirsutus, aculeatus, ramosus, nauseosè olens. Folia viscoso-villosa, petiolata, oblonga, semipedalia et ultra, sinuato-pinnatifida, ad nervos flavo-aculeata, lobis lateralibus lanceolatis integris v. repando-dentatis, summo majore ovato-acuminato, angulato, inciso-lobato: petioli longi aculeati, semiamplexicaules, subdecurrentes. Racemi laterales folio inferiùs oppositi et terminales, semipedales, multiflori, distichosecundi, ex revolutis arrecto-evolvendi, floribus primariis 2 aut 3 hermaphroditis fertilibus, cæteris sterilibus masculis: pedunculi aculeati, hirsuti; pedicelli ebracteati filiformes flore duplo breviores. Cal. herbaceus, utrinque viscoso-villosus, extùs aculeatus in flore fertili, stellato-campanulatus, segmentis ovato-lanceolatis duplo brevioribus corollâ. Cor. candidissima, micans, subdiaphana, extùs lanuginosa, rotata, sesquiunciam transversa, medio tenùs 5-fida, laciniis lato-ovatis, brevè acuminatis, distinctis sinibus acutis. Stam. declinato-conniventia, ferè triplo breviora corollâ, æqualia; anth. luteæ, duplo longiores filamentis, curvulæ. Germ. parvulum, ovato-conicum, glanduloso-villosum; stylus (in sterilibus brevissimus) in fertilibus exsuperans stamina, declinatus, filiformi-clavatus: stig. continuum viride, ovato-oblongum, subdidymum, obtusum, pruinatum. (Bacca croceo-rubens, subovata, magnitudine parvi cerasi, bilocularis, glabra, viscosa, primum calyce aucto tecta, dein eodem reflexo nuda, edulis.)

A species recently introduced into this country, and not recorded in the last Hortus Kewensis; but which appears

to have been known for some time in the collections of France, Germany, and Italy. Its historians are not, however, unanimous concerning the place of its origin; some state it to be from the Isle of France, others from South America. Mr. Anderson, who superintends the Apothecaries' garden at Chelsea, informs us, that it was first raised in this country by himself from seed received from a garden in Germany.

A branching upright shrub, reaching with us the height of five or six feet, clothed by a shaggy viscid pubescence intermixed with scattered spines, more numerous at the nerves of the foliage; when smelled near of a disagreeable odour, somewhat like that of weeds from a muddy pond; a smell we have perceived also in the flower of *ILLICIUM floridanum*. *Leaves* 6 inches or more in length, oblong, sinuately pinnatifid, lateral lobes repandly dentate or entire, terminal lobe largest angular ovate, and cut into lobules: *petioles* half stem-embracing, decurrent. *Racemes* terminal and lateral, half a foot long, many-flowered with flowers pointing the same way in two ranks, from revolute straightening as the bloom evolves itself in succession; two or three primary flowers fertile, the others sterile, having an incomplete pistil. *Calyx* stellately campanulate, viscidly pubescent within and without, armed in the fertile flower. *Corolla* white, glittering, and subdiaphanous, regular, about an inch and half across. *Stamens* equal, nearly three times shorter than the corolla: *anthers* twice longer than the filaments. *Style* clavately filiform; *stigma* oblong, ovate, green, subdidymously lobed. Berry of an orange-colour, about the size of a cherry, said to be eatable.

The drawing was made in the fine collection at Mr. Vere's, Kensington Gore; where it is kept in the bark-bed of the stove. Jacquin speaks of it as a greenhouse plant.

a The calyx. *b* The stamens, as they appear when the corolla is dissected and unfolded. *c* The pistil.



L. Edwards del.

Pub. by J. K. Kilgus 170. Piccadilly. Sept. 1. 1816.

Smith. L.

ALPINIA calcarata.

Upright flowering Alpinea.

MONANDRIA MONOGYNIA.

Nat. ord. CANNÆ. Jussieu gen. 62.

SCITAMINEÆ. Brown prod. 305.

ALPINIA. Cal. superus, tubulosus, brevior, ore subtrilobo. Cor. tubulosa limbo duplici; *exteriore* tripartito subæquali: *interiore* dissimili, inter laterales exteriorum inserto, unilabiato basi utrinque denticulo aucto. *Stamen* fauci intra laciniam anticam exteriorum insertum. *Filamentum* lineare extra antheram non elongatum. *Anthera* filamentum aduata, biloba lobis distinctis, parallelis, bilocularibus, per axin longitudinalem dehiscentibus, suturæ marginibus inflexis dissepimento, demum obsoleto, insertis. *Pollen* globosum, læve. *Corpuscula* 2 (stamina sterilia) parva teretiuscula basin styli stipantia. *Germ.* 3-loc. loculis polyspermis, ovulis angulo interno gemino ordine affixis. *Stylus* filiformis longitudine filamenti in sulco antheræ receptus. *Stig.* dilatatum cavum obsoleto 3-gonum. *Caps.* 3-loc., 3-valv., polysperma, carnosa. *Sem.* subrotunda, mutuo pressione angulata, arillata. *Infior.* paniculata v. laxè racemosa, caulem terminans.

Herbæ aromaticæ. Radix perennis sæpius tuberosa, repens. Caulis simplex. Folia simplicia, 1-nervia, venis acutangulis, creberrimis, simplicissimis; petiolo vaginanti, vaginâ hinc fissili, orâ indè ligulam (Graminearum instar) productâ. Bractææ communes caducæ; partiales spathacæ, cucullatæ. Brown loc. cit. 305, 306. (Excerptum è caractere ordinis).

A. calcarata, nectario ovato-oblongo apice semibifido, foliis ensiformibus, capsula hirta. Roscoe in linn. soc. transact. 8. 347. Hort. Kew. ed. 2. 1. 5.

Renealmia calcarata. Andrews's reposit. 421.

Globba erecta. Redouté lilac. 174.

Radix fibrosa, repens, caules plures, pedales, teretes, supernè versùs pubescentes, crassitudine digiti minoris. Foliorum lamina angustius lanceolata, plana. Inflorescentia erecta, composito-racemosa; pedunculis 2-3-floris. Bractææ partiales subdiaphanæ, albicantes. Flores albo, luteo, et puniceo varii. (Ex Redoutæo.)

The *Scitamineæ* of Linnæus correspond with the *Cannæ* of Jussieu. From the last Mr. Brown has drafted a portion of the genera, and collected them into a separate order, to which he restores the appellation of *Scitamineæ*, prefixing that of *Cannæ*, to the small assemblage which is left. The first he characterizes by the aroma inherent in the plants which compose it, an interior and exterior co-

rolla, single stamen, anther with two lobes, and seeds having a *vitellus*, a multiform variable viscus of far less frequent occurrence than any of the others which belong to seeds; usually situated between the rudiment of the future plant and the albumen, from which, however, as well as the cotyledon, Mr. Brown thinks with Gærtner, that it is essentially distinct, notwithstanding the contrary opinion of some others. That of the *Canneæ*, which agrees in most points with the preceding, he has distinguished by an anther with one lobe only, a seed without the *vitellus*, and by the want of aroma, or by that which they have being very feeble.

Mr. Edwards was favoured with the specimen from which the drawing was taken by Lord Caernarvon, who had the kindness to send it from his seat at Highclere in Hampshire, in June last. As we had no opportunity of seeing the blossom after the drawing was made, we shall not attempt its description.

The species was introduced in 1804, by Mr. Aylmer Bourke Lambert, from the East Indies, where it had been discovered by Dr. William Roxburgh. Like the whole order it requires to be kept in the hot-house; and is propagated by parting the root.

a The pistil. *b* Stamens.





SEDUM ternatum.

Three-leaved american Stone-crop.

DECANDRIA PENTAGYNIA.

Nat. ord. SEMPERVIVÆ. Jussieu gen. 207.

SEDUM. Cal. inferus, 5-partitus. Pet. 5, imo calyci inserta, calycinis divisuris numero æqualia et iisdem alterna. Stam. dupla quorum alterna petalorum ungui inserta, alterna imo calyci: anth. subrotundæ. Germina petalis numero æqualia, basi interiori juncta, exteriori glandulosa glandulis squamiformibus; styli et stigmata totidem. Caps. totidem, 1-loc., polyspermæ, intus bivalves, marginibus valvarum seminiferis. Herba succulentæ; folia alterna, planu aut teretia; flores corymbosi, axillares et sæpius terminales. Jussieu gen. 307.

S. ternatum, pumilum, repens; foliis planis rotundo-spathulatis ternis, cyma subtristachya, floribus sessilibus, octandris, centro decandro.

Pursh amer. sept. 1. 324.

Sedum ternatum. *Michaux bor. amer.* 1. 277. *Persoon syn.* 1. 512.

Hort. Kew. ed. 2. 3. 112.

Sedum deficiens. *Donn cant. ed.* 6. 126.

Sedum octagon. *Hortulanis*.

Sedum americanum. *Herb. Banks*.

Sedum annuum caule compresso, foliis obversè ovatis. *Gron. virg. ed.* 2. 71.

Sedum saxatile floribus albis, foliis succulentis subrotundis, caule rubente.

Clayt. Herb. n. 891.

Anacampteros ternata. *Haworth succ.* 114.

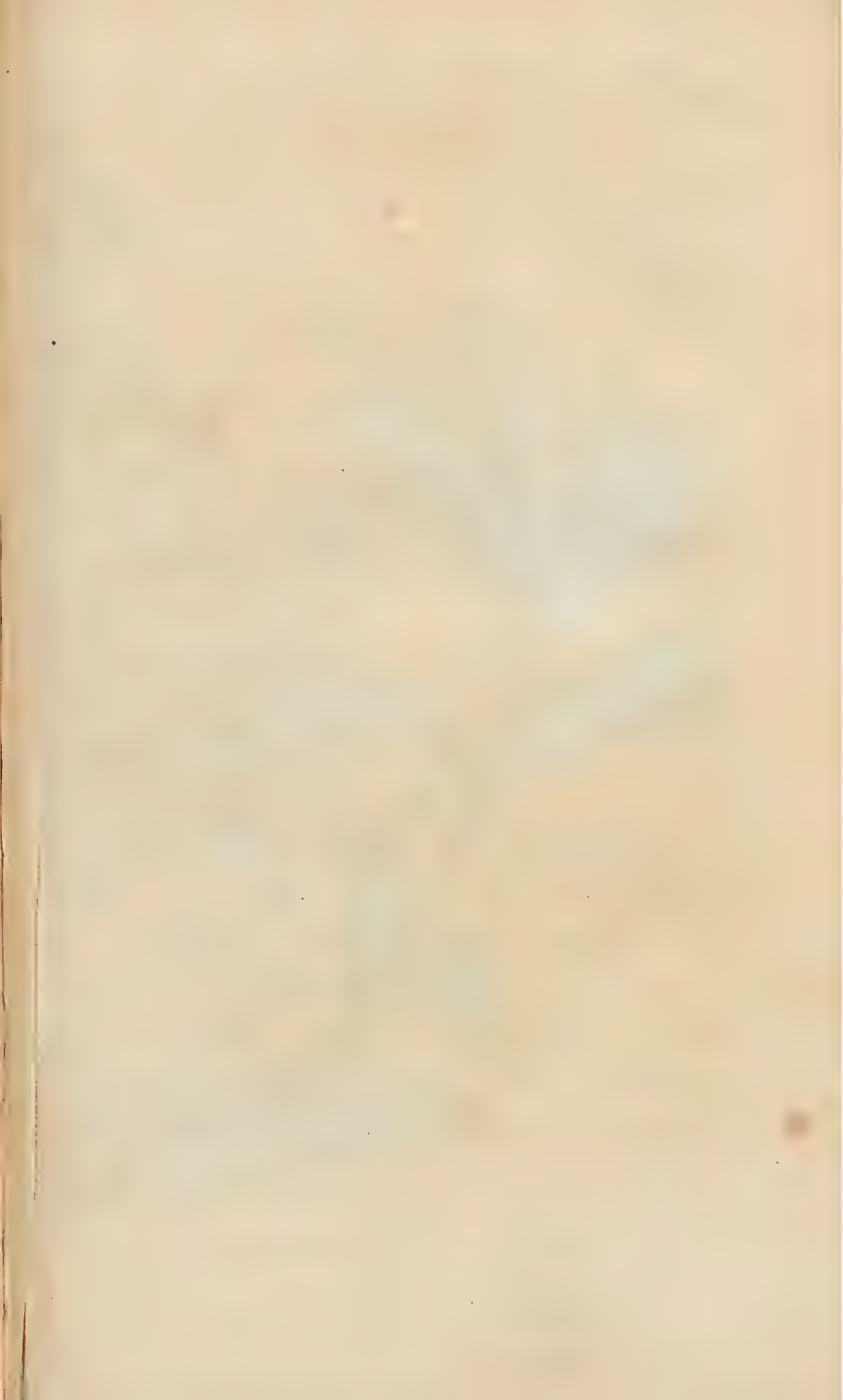
Herba perennis cæspitosa: caules stricti, foliati, floriferi sub 4-unciales, pruinosi, subrubentes. Folia caulina plana, crassa, terno-verticillata, verticillis decussatis, glabra, semuncialia v. infra ad uncialia v. supra; floralia ovali-lanceolata. Inflorescentia terminalis, numerosa, sæpius trifurco-tristachya flore solitario in centro trifurcationis; spicæ recurvo-divergentes, alterno-secundæ, foliatæ, foliis ponè spicam alternantibus cum floribus. Cal. herbaceus, 4-partitus, segmentis lineari-oblongis, obesis, obtusiusculis, corollâ $\frac{1}{2}$ -parte brevior. Cor. alba, 4-partita, semunciam transversa, stellata, laciniis angustius lanceolatis, acuminatis, canaliculatis. Stam. 8, $\frac{1}{2}$ breviora corollâ, æquantia pistilla: anth. erectæ, sagittato-ovata, rubido-brunnæ. Germ. 4, alba, erecto-stellata, oblonga, attenuata, intus suturâ marginata et basi rimâ labris tumidiusculis prominentioribus hiulca: stylus brevis continuus subulatus: stig. punctum acutum. Squamæ hypogynæ minutæ denuò lutescentes, oblongo-quadrata, subdentiformes.

The species was recorded in the Flora virginica of Gronovius (1743), but seems to have missed its place in all subsequent enumerations of plants, until Michaux's work appeared (1803), in which it stands under the present name.

A native of North America, where it is found on rocks in the western parts of Pennsylvania, Virginia, and Carolina. We know of no figure of it; although one of the handsomest and fittest plants for covering walls or rock-work of any in our gardens; into which it was first introduced by Sir Joseph Banks in 1789. Begins to flower in June, and continues to do so abundantly for a considerable time.

Soon forms a large close tuft, with stems about four inches high. *Leaves* flat, succulent, thick, in whorls of three each decussating the one the other at small distances, from half an inch to more than an inch in length, those on the stem which do not belong to the inflorescence, obovately spatulate, or with a roundish blade narrowed downwards, those more immediately connected with the inflorescence alternate, much narrower, oval lanceolate. *Flowers*, terminal, octandrous, generally in three many-flowered spikes, deriving from the same point at the summit of the stem, and having a single decandrous flower seated at their confluence, recurvedly divergent, leafy, with flowers pointing inwards, and alternating with the floral leaves, the upper ones of which are disposed in a double row behind them. *Calyx* herbaceous, 4-parted, with thick linear oblong bluntish segments. *Corolla* white, 4-parted, about half an inch across, stellate, with narrow lanceolate channelled divisions. *Stamens* 8, a third shorter than the corolla: *anthers* reddish brown. *Germens* 4, white, stellate, oblong-acuminate, with a suture along the inner margin, more prominent and partly dehiscent towards the base. *Hypogynous scales* minute, oblong, squared, becoming yellow.

The drawing was made from a plant at the nursery of Messrs Lee and Kennedy, at Hammersmith. A hardy plant, requiring the common treatment of the other sorts.





Figl. Edwards. del.

Pub. by J. Ridgway 170 Piccadilly Oct. 1. 1816.



Smith. sc.



PROSTANTHERA lasianthos.

Villous-flowered Prostanthera.

DIDYNAMIA GYMNOSPERMIA.

Nat. ord. LABIATÆ. Jussieu gen. 110. Div. IV. Stamina 4 fertilia. Cor. bilabiata. Cal. bilabiatus.

LABIATÆ. Brown prod. 499. Div. II. Stam. 4 fertilia antheris omnium v. duorum completis. Subdiv. B. Cal. bilabiatus.

PROSTANTHERA. Cal. tubulosus, bilabiatus, fructûs clausus, tubo striato, labiis indivisis, obtusis. Cor. 1-petala, hypogyna, tubulosa, ringens. Labium superius galeatum semibifidum, æstivatione equitans inferius 3-fidum laciniâ mediâ majore, bilobâ. Filamenta sub sinibus labii inferioris interlabialibusque inserta. Anth. bilobæ (omnes completæ) subtùs calcaratæ. Germ. 4, monosperma, basi mediante stylo connexa, disco glanduloso insidentia et infrâ cincta, ovulis erectis. Stylus 1, à receptaculo ortus. Stigma bifidum. Sem. (Cariopsides.) 4, calyce persistente recondita. Embryo erectus; Cotyledones planæ.

Frutices caule 4-angulo, ramis oppositis, glandulis sessilibus conspersi graveolentes. Folia opposita, exstipulata, simplicia, plerùmque dentata v. crenata, petiolis basibusve cum ramo inarticulatis. Flores v. racemosi terminales, bracteis subtendentibus caducis, v. axillares solitarii: Pedunculis omnium juxta apicem bibracteatis. Calycis labium inferius nunc retusum. Antherarum calcaria è puncto insertionis orta, in diversis diversa, sapiùs bina per lobos respondentes descendunt, usque infrâ adnata, altero brevior, quandoque deficiente, utriusque apice cristato. Cariopsides nucamentaceæ, subbaccatæ. Albumen nullum v. parvum. Brown prod. 499, et 508.

P. lasianthos, foliis lanceolatis dentato-serratis glabris, racemis paniculatis, corollis utrinque hirsutis calcare longiore lobum bis superante. Brown loc. cit. 508.

Prostanthera lasianthos. Labill. nov. holl. 2. 18. t. 157. Hort. Kew. ed. 2. 3. 426.

Frutex staturâ nunc penè arboreâ, erectus; rami decussato-patentes, ad foliorum intervalla faciebus alternis utrinque sulcati. Folia decussato-distantia, patentia, brevius petiolata, oblongo-lanceolata, acuta, glabra, subtùs nervosa, remotius et brevè serrata, firmula. Flores balsamicè odorati, in summos ramos folioso-paniculati, composito-racemosi; racemulis decussato-axillaribus terminalibusque, plurifloris; pedicellis unifloris decussatis brevioribus corollâ, bracteolâ ad basin aliisque 2 oppositis angustis paulò infra calycem stipati. Cor. subsemuncialis, albicans, turbinato-ringens, intra tubum purpureo-punctata; faux lanata; labium summum obcordato-rotundum, brevè fissum, imum longius, deflexum, crispum, 3-lobum lobo medio majore subrotundo apice angulatim exciso maculâ rubrâ didymâ ad basin. Stylus æquans galeam. Anth. violaceo-cærulescentes.

Native of Van Diemen's Island and New South Wales, where it forms a tall upright shrub of the height of eight or ten feet. In bloom it has a very lively appearance. The flowers expand in rapid succession, and are quickly shed; their scent is balsamic and not unpleasant.

Branches, foliage, general and partial racemes as well as pedicles uniformly decussated and patent. *Leaves* substantial, shortly petioled, oblong-lanceolate, pointed, smooth, nerved beneath, shallowly and distantly serrate. *Inflorescence* of *composite racemes*, disposed at the end of the branches in a broad pyramidal panicle; *partial racemes* terminal and axillary, of several flowers, *pedicles* shorter than the corolla, with a small *bracte* at their base, and two narrow subulate opposite ones just below the calyx. *Calyx* green, bilabiate, closing over the germen when the corolla falls off, tube striate, lips entire. *Corolla* about half an inch long, whitish, pubescent on both sides, tubular, turbinate, ringent, dotted with purple inside the tube; *upper lip* vaulted, obcordately rounded, shallowly bifid, lapping over the *lower* previous to expansion, the latter longer, deflectent, trifid, undulate at the edge, with a larger two-lobed middle segment having a double red spot at its base. *Anthers* two-lobed, all of them perfect, with a spur from the lower side of each lobe, that of one lobe twice the length or more of that of the other. *Stigma* bifid. *Cariopsides* (see explanation of this term in fol. 87) 4, like nuts, with a somewhat berried or fleshily thickened exterior coat.

The generic name has been compounded by M. Labillardière of *προσθηκη* and *ανθηραι*, in allusion to the appendages to the lobes of the anthers. No drawing has yet been published from a living plant. Mr. Edwards has been enabled to make the present by the favour of Lady Aylesford, in whose collection at Stanmore the specimen flowered this summer.

A greenhouse plant, introduced by Mr. Aylmer Bourke Lambert in 1808. We have not yet met with it in any of the nurseries near London.

a Calyx. *b* Corolla dissected. *c* A stamen magnified to show the anther and the two different sized spurs. *d* Pistil.



Lyd. Edwards, del.

Pub. by J. Ridgway 170 Piccadilly, Oct. 1, 1816.

Smith, sc

PASSIFLORA minima.

Curassoa Passionflower.

MONADELPHIA PENTANDRIA.

Nat. ord. PASSIFLOREÆ. Jussieu in *Annales du Muséum*. 6. 102.
PASSIFLORA. Suprà vol. 1. fol. 13.

P. minima, foliis trilobis glabris, lobis lanceolatis intermedio longiore, petiolis biglandulosis, pedunculis geminis longitudine petioli, floribus apetalis, caule basi suberoso. *Willd. sp. pl.* 3. 616.

Passiflora minima. *Linn. sp. pl.* 2. 1359. *Amœn. acad.* 1. 229. t. 10. fig. 19. *Swartz obs.* 338. *Jacq. hort. t.* 20. *Cavan. diss.* 10. 144. t. 266. *Hort. Kew.* 3. 309. ed. 2. 4. 151. *Miss Latr. passionfl.*

Passiflora hederæfolia. β. *Lamarck encyc.* 3. 38. n. 22; (sub Grenadille).

P. foliis nitidis trilobis, medio angusto longiori, lateralibus quandoque auritis, fructu minore nitido baccato. *Browné jam.* 328.

Caulis teres, glaber, 10-pedalis v. ultrà, suffruticosus, deorsum suberoso-corticatus. Folia alternè distantia, saturatè viridia, subcordato-triloba; 5-nervia, maximum 2 uncias cum dimidio longa, lobis integris acutis medio oblongo-lanceolato majore, lateralibus divaricatis, basi petiolo et margine villosula: petiolus semuncialis v. ultrà paulò infra laminam purpureo-biglandulosus. Stipulæ parvæ, subulatae. Cirri intrapetiolares. Pedicelli axillares, sæpius gemini, uniflori, æquales petiolo at plurimum graciliores, subpubescentes, laxi, suprà medium crassiores et articulati. Involucrum 0. Flores parvuli, luteo-virentes, fragrantés, nutantes. Cal. viridis, firmulus, 5-fidus, patens, extus atro-purpurascens subdecemradiatus, tuberculo prominulo acutulo ad pedem singulæ divisuræ posito, fundus externè convexus brevis et non intrusus, lacinia ovato-oblonga, obtusula. Cor. 0. Corona duplex, bis brevior calyce; radii extimi filiformes, obtusi, plurimi, proximi sed non contigui, infrà erectiusculi indè recurvi, virides apice flavi, intimi isdem subalterni, duplo breviores et graciliores capitato-dilatati vel clavati, virides: operculum violaceum planum plicatum. Columna calycem subexcedens. Fil. subulata; anth. breves, oblongo-rotundæ, polline flavo. Germ. globosum, glabrum, viride: styli cum stigmatibus capitato-clavati, divaricati. Bacca sphaerica, violacea, glabra parva, vix piso major.

The present species is among the oldest which inhabit our hothouses; having been introduced by Mr. Bentinck (afterwards Lord Portland) in 1690. Native of the dutch West India Island, Curaçao, and according to Swartz of Jamaica. Very nearly akin to *suberosa*, but has a foliage more distinctly lobed, with the two narrower lobes divaricately elongated; a suffrutescent stem, which is corky and cracked in stripes at the base only, and a smaller blossom;

altho' not the smallest of its genus as its specific name would imply.

Stem climbing, seldom exceeding ten feet. *Leaves* distant, dark green, subcordately-three-lobed, five-nerved, largest about two inches long, side lobes narrowest and far divergent from the middle one, slightly villous at the base and margin, but more conspicuously so at the *petiole*, which is about half an inch long, with two small purple opposite glands just below the blade. *Stipules* small, subulate. *Pedicles* one-flowered axillary, generally in pairs, subpubescent, as long as the petiole but much slenderer, flexile, jointed and thicker about the middle: *involucre* none. *Flowers* small, of a yellowish green, fragrant, nutant. *Calyx* firm, patent, purplish-black beneath, and marked with ten radiant streaks, base shallow convex, not dented, a small pointed *tubercle* at the fork of each division of the limb, segments ovate oblong, obtuse. *Corolla* none. *Crown* double, twice shorter than the calyx; external rays filiform, obtuse, many, near, but not contiguous, upright and green below, recurved and yellow above; *inner* alternating with these, twice as short and twice as slender, capitate widened above; *operculum* plaited, of a violet colour. *Column* rather higher than the calyx. *Germen* globular, smooth, green. *Berry* sphaerical, nearly the size and colour of a black currant.

The drawing was made from a plant cultivated in the hothouse at the nursery of Messrs Whitley, Brames, and Milne, King's Road, Fulham.





Pyd. Edmonstone del.

Pub. by J. R. Ridgway 170 Piccadilly Oct 11 1816

Smith sc.

AZALEA calendulacea. α,

Flame-coloured Azalea.

PENTANDRIA MONOGYNIA.

Nat. ord. RHODODENDRA. Jussieu gen. 158.

Div. I. Corolla monopetala,

AZALEA. Suprà vol. 2. fol. 120.

A. calendulacea, subnudiflora; foliis utrinque pubescentibus: adultis hirsutis, floribus amplis non viscosis, calycis dentibus oblongis, corolla tubo hirsuto laciniis brevior. *Pursh amer. sept.* 1. 151.

Azalea calendulacea. *Michaux bor. amer.* 1. 151. *Poiret suppl. encyc. de Lamarck* 1. 549. n. 9.

Azalea pontica. β. *calendulacea*. *Persoon syn.* 1. 212.

(α) floribus flammeo-calendulaceis. *Suprà*.

(β) floribus croceis. *Curt. mag.* 1721.

Ramuli novelli villosi. Folia lanceolato-oblonga villosa, ad nervos hirsutula, ciliata. Umbellæ subfoliatæ plurifloræ, pedicellis tubo corollæ brevioribus, viridibus, hirsutis. Cal. herbaceus, hirsutus, subbilabiatus, segmentis 2, summis oblongis obtusis submajoribus, 3 imis minimis acutis. Cor. majuscula, flammea, bilabiata, inæqualis, extus capitato-villosa, hirsutiùs ad tubum et carinas laciniarum; tubus obtusè angulosus, angulo superiore prominentiore cæteris, ut faux intus villosus; limbus 5-partitus, penè duplo longior tubo, 2 uncias transversus, venosus, margine crispâ, laciniis cordatis acuminatis, mucronatis, labii summi mediâ majore, distante 2 lateralibus, apice reflexâ, imi 2 divaricatis subfalcato-obliquatis lanceolato-cordatis duplo minoribus summâ mediâ. Stam. rubentia, exserta, declinato-assurgentia, infernè barbata villis raris, imo tubo adnata. Stylus subtriuncialis, duplum ferè corollæ; stigma virens, depresso-capitatum, papillosum.

The present variety of this species seems to be universally acknowledged the most ornamental shrub in North America; where it is found on the banks of rivers and the slopes of hills in Georgia and Carolina. Bartram, in the account of his travels through those parts, has made particular mention of it, and is the first author we believe who has noticed it. He describes it as producing a blossom of the richest red, orange, and gold colours, and sometimes of pale yellow and cream-colour, all sometimes in different flowers on the same plant, at other times on separate plants. He says it grows in insulated clumps, sometimes in copses and in open forests, often in dark groves with other shrubs about the bases of the hills, especially in the vicinity of brooks and rivulets: and that the bushes of it are so abundant and covered with such a profusion of bloom, that

on their suddenly opening to his view as he came from dark groves, he was at first struck with the apprehension that the woods of the hill-sides on which they grew were on fire. It seldom exceeds six or seven feet in height, generally not much more than three, but spreads its branches around to a considerable extent. The bloom appearing before the leaves are much developed, the blaze of its splendour is but slightly subdued by the intermixture of foliage. The colour in the plant we have shown in our figure reminds Mr. Pursh of that of a well-known variety of the Marvel of Peru (*MIRABILIS Jalapa*), and which in fact it strongly resembles. The specific name has been suggested to Michaux by the flower, in his view of it, agreeing in colour with that of the common Marygold (*CALENDULA officinalis*). One of the yellow varieties has a strong resemblance to the *AZALEA pontica*.

Leaves oblong lanceolate villous on both sides, more roughly so at the nerves and veins. *Umbels* of several flowers, fully expanded before the leaves are developed. *Calyx* hirsute, with an upper lip of two longer oblong obtuse lobes, and a lower one of three minute pointed ones. *Corolla* large, covered with glandularly capitate hairs, roughly so at the tube and the keels of the segments; *limb* almost twice the length of the tube, two inches across, veined, undulate at the edge, *segments* cordate, acuminate, with a small point at the end, the middle one of the upper lip the largest, the two of the lower lip twice smaller than this and divergent. The tube and faux are villous on the inside. *Stamens* extending beyond the corolla; *style* at least three inches long, and nearly twice the length of the corolla.

The drawing was made in July, at the nursery of Messrs. Lee and Kennedy, Hammersmith, the only place where we have met with the plant. As hardy as any of other species of the genus from America, and thrives like them in bog-earth.

The two varieties were introduced some few years ago by the late Mr. Lyon.

a Calyx. b Stamens. c Pistil.



Sp. Edw. 1816

Tab. by J. B. B. 170. P. 1816

Smith. 1816

PULMONARIA paniculata. α.

Blue flowered panicked Lung-wort.

PENTANDRIA MONOGYNIA.

Nat. ord. BORAGINÆ. Jussieu gen. 128. Div. III.

BORAGINÆ. Brown supra in fol. 124 excerpt.

PULMONARIA. Calyx 5-gonus, 5-fidus. Corolla infundibuliformis sub5-loba erecto-patens; fauce nuda. Stigma emarginatum. Fructus gymno-tetraspermus. Flores subcorymbosi terminales, in P. maritimâ spicati. Quædam non asperifoliæ. Corollæ tubus in aliis calyci æqualis, in aliis multò longior. Jussieu gen. 130.

P. paniculata, calycibus abbreviatis quinquepartitis hispidis, foliis ovato-oblongis acuminatis pilosiusculis. Hort. Kew. 1. 182.

Pulmonaria paniculata. Willd. sp. pl. 1. 769. Pursh amer. sept. 1. 131. Hort. Kew. ed. 2. 1. 292.

(α) floribus cæruleis.

(β) floribus albis.

Caulis 2-3-pedalis, erectus, striatus, asperius pubescens, ramosus. Folia sparsa, distantia, decrescentia, ovato-lanceolata, hispidio-scabra, pube brevi, nervosa nervis infra periphæriam anastomazantibus, acuminata, in petiolum subalatum attenuata, longiora subtriuncialia. Paniculæ subfoliosæ, ex axillis summorum foliorum et terminales, hispidæ, plurifloræ, nutantes, floribus per paria approximatis, supremis confertioribus: pedicelli recurvati, breviores corollâ. Cal. abbreviatus, campanulatus, hispidus, segmentis lanceolato-acuminatis, cingentibus basin tubi. Cor. caduca, semunciam superans, ex roseo-rubente cærulescens, lucida, tubuloso-campanulata, glabra; tubus crassus, cylindricus basi tumidiusculus, intus barbatus et cinctus fauce glandulis 5 brevè prominulis rotundatis luteis alternantibus cum filamentis; limbus oblongo-campanulatus, obsolete pentagonus, brevè 5-fidus, lobis rotundatis, patulis, transversim latioribus. Stam. inclusa, erecto-conniventia; fil. fauci juxtâ infra glandulas inserta, membranacea, subspathulato-oblonga, nervo medio longitudinali introrsum prominente; anth. lineari-oblongæ, filamento sublongiores, à dorso receptaculi supra fissuram basi affixæ, erectæ. Stylus persistens, æquans stamina, tetraquetro-setaceus, basi connectens cariopsides 4; stigma apicula obtusa tumidiuscula.

A hardy ornamental perennial species, native of Hudson's Bay. Not figured in any work known to us; altho' introduced by Dr. Solander as far back as 1778. Even now not common in our collections. The drawing was taken at the nursery of Messrs. Lee and Kennedy at Hammersmith, the only garden we have ever seen it in.

Stem 2-3 feet high, streaked rough, branched. *Leaves* scattered, distant, ovately lanceolate, hispid, pubescence short, nerved, nerves confluent a little within the margin,

tapered towards the base into a short subulate *petiole*, the largest about three inches in length. *Panicles* leafy, from the axils of the upper leaves and terminal, hispid, several-flowered, nutant, flowers in each approaching by pairs, uppermost closest: *pedicles* recurved, shorter than the corolla. *Calyx* very short, campanulate, hispid, segments acuminate. *Corolla* somewhat more than half an inch long, soon falling off, young of a rosy red, full blown of a shining sky-blue colour, smooth, tubularly campanulate; *tube* wide, cylindrical, swelled at the base, bearded inwards, and surrounded at the *faux* by 5 shortly prominent roundish *glands* alternating with the filaments; *limb* oblong-campanulate, obsoletely pentagonal, shortly five-cleft, *lobes* rounded, patent, broader than long. *Stamens* enclosed, upright, connivent; *filaments* inserted at the *faux* just below the five glands, membranous, oblong, subspathulate, with a prominent midrib; *anthers* linear-oblong, rather longer than the filaments, appended from the back of the receptacle of their locuments, upright. *Style* persistent, equal to the stamens, tetragonally setaceous, connecting by its base the usual four naked seeds (*cariopsides*); *stigma* a small swollen obtuse point.

Will do with the usual treatment of hardy perennials. Propagated by seed, and by parting the root. There is a variety with white flowers.

a Calyx. *b* Corolla dissected. *c* Pistil.





Lyl. Edwards del.

Pub. by J. Ridgway

170 Leendilby Oct. 1. 1816.

Smith. sc.

ŒNOTHERA odorata,
Curled-leaved *Œnothera*.

OCTANDRIA MONOGYNIA.

Nat. ord. ONAGRÆ. Jussieu gen. 317.

Div. III. Stylus unicus. Fructus capsularis. Stamina petalorum dupla.

ŒNOTHERA. Cal. monophyllus; superus, longus cylindricus apice deciduus cum limbo 4-partito. Pet. 4, summo calyci inserta, ejusdem laciniis alterna. Stam. ibidem inserta; anth. oblongæ incumbentes. Stigma 4-fidum. Caps. longa cylindrica sub 4-gona 4loc. 4valv. polysperma, valvis medio septiferis, seminibus nudis numerosis angulatis receptaculo centrali affixis. Herba, quædam lignosa; folia alterna; flores solitarii axillares. Jussieu gen. 319.

Œ. odorata, foliis lineari-lanceolatis subdentatis undulatis, caule villososuffruticoso. Jacq. ic. rar. 3. t. 456.

Œnothera odorata. Jacq. coll. 5. 107. Willd. sp. pl. 2. 308.

Œnothera undulata. Hort. Kew. ed. 2. 2. 342.

(α) caule, nervis foliorum, calyce, germineque rubentibus.

(β) caule, nervis foliorum, calyce, germineque virentibus.

Suffruticosa, perennis. Caulis sesqui-bipedalis de propè basin ramosus et foliatus [in plantis annolinis modò simplex]; rami nunc plurimi hirsutiùs villosi, ad hyemem usque procrecentes et flores successivè promentes. Folia sparsa, distantia, sessilia, lanceolata, deorsum parùm angustata, sursùm longè cuspidato-atenuata, utrinque villosa, lucido-virentia, undulata, præprimis superiora floralia quæ basi ovata, inferiora modò explicata atque plana, denticulis paucissimis remotis callosis obscuriùs marginata, costâ mediâ cum nervis senis v. octonis longitudinalibus, longiora 3-4 uncialia, summa latiora modò parùm infra unciam basi transversa. Flores in summis foliis axillares, successivi, solitarii, sessiles, odorati, vespere expandentes, mane croceo-emarcescentes. Germ. sub-tetragonum, villosum, longius tubo calycino. Calyx villosus, sesquiuncialis; tubo recto tereti striato; limbo deflexo $\frac{1}{2}$ parte ferè longiore; segmentis juxtâ infra apicem cornuto-mucronatis. Corolla lutea 2 uncias vel magis transversa; pet. lato-obcordata, emarginaturâ profundâ et acutâ. Stam. $\frac{1}{2}$ parte breviora corollâ. Stigmata 3-plo breviora stylo.

The present species was first raised in Europe in 1790, from a collection of seeds made by the surgeon of a merchant-ship, at Port Desire (a harbour on the eastern coast of Patagonia, frequented by vessels on their passage to the Pacific Ocean). Sir Joseph Banks purchased the parcel which was brought home, and presented a part to Professor Jacquin; by whom our plant has been figured in the "*Icones plantarum rariorum*," and its history given in his

"*Collectanea*;" where the native place is said to be on the banks of Champion river; a river unknown to Geography. Both the figure and history escaped the learned editors of the last edition of the *Hortus Kewensis*, until the species had appeared in that work under a new name, as unrecorded. The oversight was subsequently detected by Mr. Brown, and we now give the species by the prior appellation.

A tolerably hardy perennial plant, of the easiest cultivation, growing almost anywhere, and scattering the seed spontaneously, by which means a sufficient succession of young plants may be obtained without trouble. The stem never dies completely down, even in the open air, but in the greenhouse it is said to survive completely, and become an evergreen. Sometimes destroyed by very severe frost. Now very common in our gardens, and deservedly so, from the elegance and singularity of the foliage and fragrance of the bloom. This last expands about sunset, and fades at sunrise; and the branches continuing to grow in length thro' the whole summer, till stopped by the frost, a long succession of flowers is kept up. *Stem* from one to two feet high or more, simple or numerously branched, leafy from near the foot to the summit, sometimes green, sometimes deep purple throughout. *Leaves* scattered, distant, sessile, lanceolate, far tapered, somewhat ovate at the base, slightly villous on both sides, not smooth as described in the *Hortus Kewensis*, upper ones conspicuously undulate, lower less so and sometimes quite flat, all of a deep shining green colour; sometimes with purple, sometimes with pale green nerves. *Flowers* yellow, solitary, sessile, axillary in the upper foliage. *Calyx* pale green or purplish, an inch and half long; tube a fourth shorter than the deflexed limb. *Petals*, when fully expanded, little less than two inches over, obcordate, deeply and sharply emarginate. *Germen* longer than the tube of the calyx; sometimes green, sometimes purple.

The drawing was made from a plant in the Apothecaries' Garden at Chelsea.

a Seed-vessel before it becomes dry.

POGONIA ophioglossoides.
Adder's-tongue-leaved Pogonia.

GYNANDRIA MONANDRIA.

Nat. ord. ORCHIDÆE. Jussieu gen. 64. Brown prod. 309.

Div. III. *Anthera terminalis*, inserta, persistens. *Massæ pollinis* v. *pulveræ* v. è *corpusculis* angulatis: basi v. infra apicem affixæ. Brown in Hort. Kew. ed. 2. 5. 201.

POGONIA. *Labellum* sessile, cucullatum, intus cristatum. *Petalata* 5 distincta, eglandulosa. *Pollen* farinaceum. Brown in Hort. Kew. ed. 2. 5. 203.

P. ophioglossoides, radice fibrosa, scapo dissitè bifoliato 1-2-floro, foliis ovali-lanceolatis, labello fimbriato. Pursh amer. sept. 2. 590; (sub ARETHUSA).

Arethusa ophioglossoides. Linn. sp. pl. 2. 1346. Michaux bor. amer. 2. 159. Lamarck illustr. t. 729. f. 2; (de sicco). Willd. sp. pl. 4. 80.

Arethusa radice fibrosa, scapi folio ovali, foliolo spathaceo lanceolato. Gron. virg. ed. 2. 139.

Cypripedium folio caulino ovato-oblongo, terminali lanceolato plano. Gron. virg. ed. 1. 110.

Helleborine virginiana ophioglossi folio D. Banister. Pluk. alm. 182. t. 93. f. 2.

H. aquatica flore in summo caule unico carneo, barba purpurea fimbriata, foliis ophioglossi, radice fibrosa. Clayt. MSS. n. 77.

Radix crassè fibrosa, simplicior, rigida, horizontalis. Caulis erectus, simplex, bifolius, uncius 5 altus. Folia 2 semivaginantia-decurrentia, laminâ ovali-lanceolatâ 3-5-nervi, inferioris subsesquiunciali, superioris vix semunciali. Flos 1 (vix 2?) semuncialis, nutans 1 oblongo-semicampanulatus, semiringens: pet. 5, dilutiùs lilacina, fornicato-ascendentia, isometra, 3 exteriora divergentia lineari-lanceolata duplo angustiora magisve, concava, 2 interiora obovato-oblonga sub summo medio imbricato-concurrentia. Labellum vix longius, pandurato-obovatum, fimbriâ brevi patente pectinato-incisâ transversè purpureo-striatâ barbâ, intus pilis densis suprâ æquatis infernè versùs decreascentibus cristatum, basi subventricosum. Columna transversè striata lineis purpureis, duplo brevior et appressa labello, semiclavata, dorso rotundata, facie plana, suprâ utrinque dentato-fissa lobulis contiguis, infernè complexa marginibus involutis unguis labelli. Operculum antheræ antrorsum columnæ continuo-connexum.

This singular little plant was introduced by Mr. Nuttall, to whom our collections are indebted for several of their rarest specimens. Native of North America, from Canada to Carolina, and grows in mossy bogs and swamps. Although well known in our books, and represented by two figures from dried spontaneous specimens; it has, we be-

lieve, never till now been introduced into any european garden, nor been represented anywhere from the living plant. *Root* perennial, fibrous, fibres thickish, simple, wiry, horizontal. *Stem* under six inches high, upright, simple, two-leaved, one-flowered. *Leaves* halfstem-embracing and decurrent, blade oval-lanceolate, three-nerved, that of the lower leaf an inch and half long, of the upper scarcely half an inch. *Flower* nutant, oblong, semicampanulate, semi-fingent, about half an inch long: *petals* 5, of a palish pink or lilac colour, ascendent, vaulted, of one length, *three outer ones* divergent, linear-lanceolate, concave, twice the narrowest or more; *inner two* obovately oblong, converging imbricately under the arch of the middle of the three outermost. *Lip* scarcely longer than these, obovate, somewhat contracted at the sides below the middle, bearded by a narrow pectinated purple-streaked horizontal fringe round the front edge, beset within by a level-topped crest or comb of compact hairs, growing shorter as they descend inwards; unguis or narrow part somewhat tumid or enlarged at the base. *Column* twice shorter than the lip to which it is pressed down, semicylindrically clavate, streaked transversely by purple lines, rounded at the back, flat in front, clasped at the base by the inflected sides of the unguis or narrow portion of the lip, at the top dentately cleft on each side, lobules contiguous. *Anther* persistent. *Pollen* mealy. We had not an opportunity of examining the anther and stigma so completely as we wished.

The drawing was made at the nursery of Messrs. Colville, in the King's Road, Chelsea. The plant is most probably quite hardy; but in order to secure its flowering it was planted in bog-earth, and the pot placed in a pan of water in the hothouse, as soon as the roots arrived from America. Without this treatment we should most likely not have been enabled to have procured the present figure of it.

a The outline of an artificially extended flower. *b* The column with the anther turned up out of its place of insertion.



Lyth. Edwardsi *det.*^t *Pub.*^l by *F. Richardson* 176 *Proc.*^l *Oct.*^l 1. 1816 *Smith's* *hisp.*^t

CAMPANULA coronata.
Crowned siberian Bell-flower.

PENTANDRIA MONOGYNIA.

Nat. ord. CAMPANULACEÆ. Jussieu gen. 163. Div. I.

CAMPANULACEÆ. Brown prod. 559.

Sect. I. Corolla monopetala regularis. Antheræ liberæ.

CAMPANULA. Suprà vol. 1. fol. 56.

Div. foliis lævioribus.

C. coronata, foliis radicalibus petiolatis cordatis subduplicato-serratis; caulinis sessilibus lanceolato-linearibus integerrimis, rigidis: corona subcallosa tubulosa; æquali et inclusa basibus dilatatis filamentorum.

Campanula liniphylla. Ità inscribitur specimen sibiricum spontaneum Pallasio receptum, absque foliis radicalibus in *Herb. Banks.* repositum.

Campanula foliis linearibus rigidis integerrimis longissimis, spica terminante secunda. *Gmel. sib. 3. 162. t. 33. fig. 3; (pessima; delineata ad exemplarium siccatum mancum sine foliis radicalibus).*

Herba perennis, graveolens. Folia difformia, radicalia lato-cordata, acuminata, duplicato-v. inæquali-dentata, subbiuncialia, lenta; petiolus laminæ subæqualis: caulina firma, multifariam sparsa, remotiuscula, erecto-potentia, sessilia, lineari-lanceolata longè attenuata, costâ caniculata et carinata, tactui scabriuscula, ad lentem infra subvillosâ, longiora subtriuncialia, vix tres lineas lata. Caulis rigidus sesqui-bipedalis, simplex, striato-teres saturatè viridis, infernè foliosus, racemo paniculato terminatus, tactui scabriusculus et ad lentem pubescens. Panicula remota, subpyramidata, pedalis, pedicelli erecto-patentes, bractea acuminatâ suffulti indè unâ aut alterâ suprâ stipati, superiores uniflori, inferiores pauci divisi, ad summum triflori; flores cernui, violaceo-cærulescentes, inodori, parum excedentes $\frac{3}{4}$ partes uncia. Cal. stellato-patens, segmentis angustis subulatis glabris 5-quies penè brevioribus corollâ. Cor. inflatius campanulata oblongiuscula, longitudinalitè rugosa, subplicato-5-nervis, sub limbo obsoletè constricta, lobis 5 brevibus angulari-acuminatis, recurvulis, æqualibus. Germ. saturatè virens, parum longius calyce, oblongum, angulosum, glabrum; summo disco auctum coronâ cartilagineâ cyathoideo-tubulosâ, lutescente, supernè extus lanuginosâ, margine subdentato-repandâ, contactâ filamentorum basibus dilatatis et iisdem æquali. Stam. $\frac{5}{2}$ breviora corollâ; filamentorum bases membranosæ lineari-oblongæ utrinque lanâ albâ marginatæ indèque implexo continentes; anth. erecto-continua, lineares, luteæ. Stylus exsertus, clavato-teres, violaceus, erectus; stig. 3, viridia, crassius linearia, pruinoso-pubescentia, revoluta-replicata.

A rare species, not recorded in any general system of vegetables; nor known in our collections until introduced last year by Messrs. Whitley, Brames, and Milne, from Moscow, by way of Berlin. From a spontaneous specimen, without radical leaves, received from the Chevalier

Pallas, under the name of *CAMPANULA liniphylla*, and deposited in the Banksian Herbarium, we know it to be native of Siberia. The figure and description in the *Flora Sibirica* of Gmelin have been taken from an imperfect dried plant; and the present are the only ones published from the living plant. We have not retained the specific title of *liniphylla*, as there existed already a species known by that of *linifolia*. The name we have given refers to the crown on the disk of the germen, a feature completely anomalous in the genus, as far as the species are known.

A perennial hardy herb, with a rank disagreeable smell. From a foot to a foot and half high; *leaves* of two forms; *radical* broadly cordate, acuminate, doubly or unequally dentate, with a *petiole* about equal to the blade: *cauline* scattered, sessile, substantial, not close, uprightly patent, linear-lanceolate, far tapered, channelled and keeled at the midrib, roughish to the touch, seen through a magnifying glass shortly subpubescent, the longest three or four inches long, scarcely three lines broad. *Stem* upright, round, striate, simple, leafy downwards, stiff, terminated by a paniculated, somewhat pyramidal raceme of distant flowers, nearly a foot in length; *pedicles* uprightly patent, with a leaf-like *bracte* at the base, and one or two above, *upper* one-flowered, some of the *lower* three-flowered. *Corolla* cernuous, of a violet-blue colour, scentless, scarcely exceeding three fourths of an inch in depth, campanulate, slightly inflated, oblong, vertically wrinkled, nerves five, plaited, a faint constriction below the limb; *segments* short, angularly acuminate, recurved, equal. *Filaments* dilated at the base into linear oblong membranes, which are connected together by a short white woolly fringe at the edges. *Style* extruded beyond the corolla, violet; *stigmas* 3, green, revolute. *Germen* crowned at the summit by a pale yellow cartilaginous hollow cylinder downy upwards on the outside, enclosed within the bases of the filaments, to which it is equal in length.

The drawing was made in July last, at the nursery of Messrs. Whitley, Brames, and Milne, in the King's Road, Fulham. Of the easiest cultivation in any situation in the open ground.

a Stamen with dilated base. *b* The flower stripped of the corolla and stamens; magnified. *c* Stigmas. *d* The crown, as seen when uncovered. *e* Segments of the calyx. *f* A flower with the corolla removed. *h* The bases of the filaments which cover the crown. *g* The stigmas as they appear before they diverge.



Syl. Edwards del.

Pub. by J. Ridgway Piccadilly Nov. 1. 1816.

J. Smith sculp.

POLYGALA speciosa.

Large-flowered Cape Milkwort.

DIADELPHIA OCTANDRIA.

Nat. ord. PEDICULARES. Jussieu gen. 99.

Div. I. Stamina non didynama, 2 aut plura.

POLYGALA. Cal. 5-partitus, laciniis 2 longè majoribus alæ formibus sæpè coloratis. Cor. convoluta in tubum suprâ fissum, limbo 2-labiatum, labio superiore bipartito fisso, inferiore concavo subtùs barbato aut imberbi, intus obtegente stamina in duas fascies collecta; anth. 1-loc. Stig. subbifidum. Caps. (Legumen biloculare) compressa, obcordata. Herbæ aut frutices; folia plerùmque alterna; flores 1-3-bracteolati, alterni, laxè aut densè spicati, terminales. Jussieu gen. 99.

P. speciosa, cristata, fruticosa, appendice duplici, racemis ebracteatis subterminalibus multifloris, foliis alternis oblongo-cuneatis glabris.

Curt. mag. 1780.

Polygala speciosa. Herb. Banks.

Frutex suborgyalis, junceo-virgata, ramis novellis tumidiusculis. Folia sparsa, laxa, lineari-oblonga, angusta, subcuneata, sessilia, deorsum attenuata. Racemi terminales, laxè spicati, erecti, multiflori, rachide interruptè angulosâ, pedicellis 1-floris, 3-plo brevioribus flore, lanuginosis, flexilibus, decurvis, basi cinctis bracteolis 2-3 deciduis. Flores $\frac{3}{4}$ partes uncie longi, penduli, violaceo-purpurascens. Cal. segmentis tribus duris livido-virentibus obtusissimis, 3-plo brevioribus lateralibus 2 amplis alæformibus coloratis falcato-rotundis. Cor. subtripetala, bilabiata; labium supremum vexillum bipetalinum tubuloso-convolutum, parùm longiùs segmento supremo calycis, incumbens parte imâ interiore carinæ; infimum carina monopetala follicularis, alis calycinis sublongior, falcata, compressa, assurgens flexurâ ventricosâ, acuminatâ, fissurâ internâ ventrali labris villosis arctè conniventibus, subtùs infra apicem educens cristam amplam bipartitam decompositam multifidam cancolorem porrectam. Stam. infernè tubuloso-monadelpha fissurâ verticali ciliatâ, indè distincta: anth. erectæ, filamentorum subclavato-continuæ, 1-loculares, suburnato-cylindricæ, apice dehiscentes ore obliquo revolutim marginato hinc lanceolato-appendiculato: pollen subfluido-grumosum, aureum, splendens. Germ. parvulum, compressum, obcordatum glabrum, biloc., loculis 1-spermis: stylus subfusiformis, rigidus, robustus, de medio arrecto-inflexus, indèque roseo-rubescens, infrâ attenuatus, è puncto gracili insertus germi, latere anteriore barbatus: stigma hamatum, anticè pubescens et rima longitudinali incisum.

The finest species known of the genus; recently introduced into our gardens, and not incorporated in any systematic arrangement of vegetables. Native of the Cape of Good Hope, where specimens have been collected by the late Mr. Masson, and deposited in Sir Joseph Banks's Herbarium by the name we have adopted.

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A greenhouse shrub, growing to the height of six or seven feet, perhaps higher, branching upwards with numerous rushy twigs, generally thickened or swollen towards the end, altogether reminding us of those of the Spanish Broom. *Leaves* scattered, rather distant, linear-oblong, narrow, somewhat cuneate, with a small point, sessile, tapered downwards. *Racemes* terminal, spiked, loosely flowered, upright; *rachis*, or general stalk, interruptedly angular; *pedicles* one-flowered, three times shorter than the corolla, downy, bending; *bractes* 2 or 3 at the base of each, minute, deciduous. *Flowers* large, about 3 parts of an inch long, of a violet-purple colour, but when dried fading to a pale rose or flesh colour. *Calyx* with 3 hard round-pointed segments of a livid green, three times shorter than the two larger petal-like ones of the sides, which are round and coloured. *Corolla* of 3 petals, bilabiate; *upper lip* a small vexillum or standard of two petals rolled together into a tube, but little longer than the upper segment of the calyx and resting upon the lower portion of the keel or under petal; *under lip* a keel or carina of one petal, follicular, rather longer than the wings of the calyx, falcate, compressed, ventricose at the bend, acuminate, edges of the fissure ciliate and connivent, bearing beneath from below the apex a large bipartite decomposedly multifid crest of its own colour and projecting horizontally; a part when inspected through a magnifier of great beauty. *Stamens* tubularly connate below, with a ciliated fissure above: *anthers* upright, continuous with the filaments, one-celled, cylindric, opening by an urn-like orifice, revolute at the edge, and projecting a lanceolate appendicle from the under part; *pollen* grumous, of a shining yellow colour like the shell-gold used for painting in water-colours. *Style* fusiform, rigid, bent upwards. *Stigma* hooked. *Cells* of the germen one-seeded.

The drawing was taken from a plant in the collection of Mr. Griffin, at South Lambeth; by whom we understand the species was introduced. We also received a specimen from Messrs. Lee and Kennedy, of the Hammersmith nursery. As yet a rare plant.

a The calyx, showing the two alate or petal-like segments. *b* The stamens. *c* The superincumbent vexillum of two petals. *d* The pistil. *e* The carina, boat, or keel.





Byd. Edwards del.

Pub. by J. Ridgway. 170. Proceeding Nov. 1. 1846

Smith. sculp.

AMSONIA latifolia.
Broad-leaved Amsonia.

PENTANDRIA MONOGYNIA.

Nat. ord. APOCINÆ. *Cal.* 5-divisus, persistens. *Cor.* 1-petala, hypogyna, regularis, 5-loba, æstivatione imbricata, decidua. *Stam.* epipetala, laciniis limbi alterna. *Fil.* distincta. *Anth.* 2-loc., longitudinaliter dehiscentes. *Pollen* granulosum, stigmati immediate applicitum. *Germ.* 2, v. 1 biloc., in plurimis polyspermum. *Styli* 2, v. 1. *Stig.* 1. *Fructus* follicularis, capsularis, drupaceus, v. baccatus, duplex v. simplex. *Sem.* sæpissime albuminosa. *Embryo* foliaceus. *Plumula* inconspicua. *Arbores* v. *Frutices* (modò *Herbæ*) sæpè lactescentes. *Folia* opposita, nunc verticillata, rarò sparsa, integerrima, ciliis glandulisve interpetiolaribus sæpiùs instructa. *Inflor.* subcorymbosa. *Brown prod.* 1. 465.

Dir. II. Semina non comosa. *Fructus* bifollicularis. *Id. eod.*

AMSONIA. Contorta. *Cor.* infundibuliformis, fauce clausa. *Folliculi* 2, erecti. *Sem.* teretia, nuda, apicibus obliquè truncatis. *Stigma* margine annulari. *Folia* alterna. *Persoon syn.* 1. 269.

A. latifolia, caule glabriusculo, foliis ovali-lanceolatis superioribus promissè acuminatis subtùs ad nervos pubescentibus. *Pursh amer. sept.* 1. 184.

Amsonia latifolia. *Michaux bor-amer.* 1. 121. *Persoon syn.* 1. 269.

Hort. Kew. ed. 2. 272.

Amsonia Tabernæmontana. *Walt. carol.* 98.

Tabernæmontana Amsonia. *Linn. sp. pl.* 1. 308. *Hort. Kew. ed.* 1. 300. *Willd. sp. pl.* 1. 1246.

Anonymos suffrutex, &c. &c. *Gron. virg. ed.* 2. 35.

Apocynum virginianum, asclepiadis folio, floribus pallidè cæruleis, radice crassâ. *Pluk. phyt. t.* 115. *fig.* 3.

Herba, radice perenni. *Caulis* ramosus, erectus, teres, glaber, supernè lividus. *Folia* sparsa, distantia, erecto-patentia, lanceolata, brevius petiolata, 2-3-uncialia v. magis, subtùs pallido-pruinulata (in spontaneo villosa), ciliolata. *Flores* terminales, laxè paniculati, subcymosi, cærulei, *Violam* redolentes: *pedicelli* bracteolâ squamiformi suffulti. *Cal.* lividus, parvulus, lobulis acutis. *Cor.* erecta, semunciam subexsuperans, tubulosa, angusta, in faucem parùm latiore increscens, limbo 5-partito tubo $\frac{1}{2}$ parte ferè brevior, stellato, laciniis lineari-oblongis, concavis, obtusis: faux barbâ albâ supra stamina diffusâ et implexâ infra ea deflexâ clausa. *Stam.* ori faucis inserta, barbâ nidulantia conniventia: *anth.* longiores filamentis brevibus, à dorso suprâ maculato appendicæ, subdidymo-biloculares, ovata, sursùm attenuata. *Germ.* subdidymiconicum, breve, glabrum: *styli* 2 filiformes, concreti, vel soluti: *stigma* viride, crassum, depresso-capitatum, suturâ transversâ suprâ, subtùs margine albâ annulari deorsùm spectante cinctum.

Said by Mr. Pursh to grow in wet shady woods in Carolina. With us a tolerably hardy perennial plant, of easy culture, and long known in our gardens.

The stem dies down annually; this is round, upright, branching, smooth, and of a livid or bluish green above. *Leaves* scattered, distant, upright-patent, lanceolate, shortly petioled, two or three inches long, somewhat downy beneath (villous in spontaneous specimens), shortly ciliate. *Flowers* blue, terminal, loosely paniced, tending towards a cyme, having a fragrance resembling that of the Violet: *pedicles* with a small scalelike bracte. *Calyx* small, livid, lobules acute. *Corolla* upright, rather longer than the half of an inch, tubular, narrow, slightly enlarged towards the faux, *limb* 5-parted, nearly a third shorter than the tube, stellate, *segments* linear-oblong, concave, obtuse: *faux* closed by a white pubescence. *Stamens* inserted at the orifice of the faux, and buried in the pubescence, connivent: *anthers* longer than the short filaments, subdidymous, tapering upwards, spotted at the back. *Germen* conic, as if of two parts, short, smooth: *styles* two grown together, seldom separated: *stigma* green, thick, depressedly capitate, traversed above through the centre by a straight suture, surrounded underneath by a white annular deflectent ledge. Although so long known in Europe, we can find no figure of it, except the diminished engraving, from a dried specimen in Pluknett's work. The present drawing was made at the nursery of Messrs. Whitley, Brames, and Milne, King's Road, Fulham.

We have omitted the synonym of Miller's Dictionary, as a white flower without scent, is there spoken of.

a The calyx. *b* A corolla dissected vertically. *c* Pistil.



Syl. Ed. v. 1.

Pub. by J. Rudgway 1790.



PASSIFLORA incarnata. β .*Flesh-coloured Passionflower*; with purplish fruit,

MONADELPHIA PENTANDRIA.

Nat. ord. PASSIFLOREÆ. Jussieu in *Annales du Muséum*. 6. 102.
 PASSIFLORA. *Suprà* vol. 1. fol. 13.

- P. incarnata*, foliis trilobis serratis, lobis oblongis acutis, petiolis biglandulosis, involucri triphylo, foliolis lanceolatis glanduloso-dentatis, filis coronæ corollæ longioribus. *Willd. sp. pl.* 3. 621.
- Passiflora incarnata*. *Linn. sp. pl.* 2. 1360. *Amœn. acad.* 1. 230. n. 19. t. 10. fig. 19. *A. B. C. D. E. Mill. dict. ed.* 8. n. 1. *Lamarck encyc.* 3. 40. *Walt. carol.* 223. *Miss Læver. passionfl. Hort. Kew.* 3. 310. ed. 2. 4. 153. *Michaux bor-amer.* 2. 37. *Pursh amer. sept.* 2. 445. *Barton's elem. of bot. ed. Lond. cum tab.* (Omissis passim synonymis Jacquinii et Cavanillesii, quæ aut non hujus loci aut conficta).
- Passiflora foliis trilobis*. *Gron. virg. ed.* 2. 140; (ex specimine archetypo apud *Herb. Clayt. in Mus. Banks.*).
- P. foliis crenatis tripartito-divisis*. *Pluk. alm.* 281.
- Granadilla folio tricuspidè, latè scandens, florè amplo specioso purpureo alboque variegato, fructu magno ovato. Fructus à nonnullis inter edulia habetur.* *Clayt. n.* 151.
- Granadilla hispanis, Flos Passionis ital.* *Hern. mex.* 888. t. 890.
- Granadiglia overo Fior della Passione.* *Tab. æn. Napoli* 30. oct. 1622. *Fra Donato d'Eremità. (A single plate in Sir Joseph Banks's Library.)*
- Clematis trifolia s. Flos passionalis, florè viridi.* *Moris. hist.* 2. 6. sect. 1. t. 1. fig. 9.
- Balsamina indica repens triphylla s. folio hastato.* *Ambr. phyt.* 89. t. 90.
- Murucuja maliformis alia.* *Marcg. bras.* 71. t. 71.
- Maracoc s. Clematis Virginiana.* *Park. parad.* 393. t. 395. fig. 7.
- Maracot indicum.* *Hort. farnes.* 49. t. 50, 52.
- Vera e natural effigie della pianta indiana chiamata Maraco, Granadilla, e fior della Passione D. N. S. (Tobia Aldini. Venetia a di 28 luglio. 1620). *Single plate in Sir J. Banks's Library.*
- Vera et ad vivum expressa effigies folii et floris plantæ Maracò vulgò nominatæ Flos Passionis; qualis floruit horto Joannis Robini botanici regii mensibus Augusto et Septembri 1612 & 1613. (A single plate in Sir Joseph Banks's Library.)
- (α) foliis vagè et ad nervos subvillosis; germine villosio; bacca viridilutea.
- (β) foliis nudiusculis; germine glabro; bacca livido-purpurascente.
- Frutex altè et latè scandens, ramis floriferis herbaceis fistulosis angulosis, modò subvillosis. Folia profundius triloba, basi subcordata, orâ brevissimè deflexa, lucido-virentia, modò subvillosa, lobis oblongo-ovatis acutis serratis dentibus apice decurvis et glanduloso-incrassatis, medio latiore ellip-*

tico: petioli suprà canaliculati, juxtà infra laminam biglandulosi. Stipulæ parvæ, lineari-subulatae. Cirri longiores foliis. Flores axillares, solitarii, pedunculo triquetro brevioris foliis. Involucrum parùm distans flore, triphyllum, æquale, connivens, vix attingens ultra tubum calycis; foliola rhombo-ovata, lanceolata, glanduloso-serrata. Cal. sesquinciā longus, crassus, spongiosus, fundo extus profundè intrusus, infernè pro $\frac{1}{2}$ parte campanulato-tubulosus, indè 5-partitus, rotatus, segmentis oblongis intus albicantibus planis, extus virentibus carinatis, carinā altā mucrone falcato terminatā. Pet. tubo calycis imposita, parùm breviora at plurimùm angustiora et tenuiora ejusdem segmentis. Corona multiplex, conferta, crispa; radii gradatim ab internè brevissimis papilliformibus et numerosis ad externè calycem æquantibus, in orbem patentissimi, setacco-filiformes, flexuosi, violaceo et albo varii. Operculum plicatum, violaceum, incumbens septo ascendente nectarii. Nectarium album, tubulosum, subbicameratum, septo medio incompleto deflexo. Columna inclusa, violaceo-maculata. Germ. viride, ovale, glabrum, exsulcum. Anth. viridi-luteæ. Styli clavati, stigmatibus continuis subdidymo-capitatis, obliquis pruinosis. Bacca (v. Pepo) sordidè v. lividè purpurascens (nunc flavescens), formā ferè et magnitudine ovi columbini vel modò globosa et pene duplo major, pulpā luteo-virescentē; sem. atropurpurea.

This is the first species of the genus which was introduced into Europe, and has suggested the generic name. The plant was originally discovered by the Spaniards, who called it, like the other sorts *Granadilla*, from a resemblance they conceived the fruit to bear to that of the common Pomegranate. But on its appearance in Italy, which seems to have occurred in the commencement of the 17th century, superstition descried in the configuration of the different parts a mysterious representation of the Passion of Christ, and the priests strove to turn the new vegetable prodigy to account. The leaf, as is well known, was expounded to be the spear which pierced the side, the twined threads of red and white which form the crown of the flower the lashes of the whip tinged with blood, the five encircling stamens the crown of thorns, the column in the centre of the flower a miniature of that, which served in the flagellation, the three clavate stigmas the three nails used in the crucifixion. The plant was pronounced a miraculous emblem of those sufferings, and received the sanctimonious title of *Fior della Passione*, or *Flos Passionis*, afterwards combined by Linnæus into the technical name of *PASSIFLORA*. Figures of it were manufactured for devotional purposes, and made up of crude representations of the instruments themselves, instead of their presumptive symbols. An image of this kind has been placed at the side of that of the natural vegetable by Parkinson, an old english botanist, whose orthodoxy is much affronted by this monkish device, which he charges, according to the humour of his day, to the Jesuits.

A native of Carolina and Virginia, most probably also of some parts of South America. It will not do with us in the open ground, where if the root survives for a time, the rest dies down in the winter; but in the hothouse it acquires a stem, and grows with great luxuriance, extending itself to the distance of twenty feet or more, if placed in a bed prepared in the floor. The bloom is produced in abundance for two or three months in succession, while the branches continue to advance in growth, each flower lasting only the day through. Of late it has been cultivated for the sake of the fruit, which is sometimes used in the dessert. This is about the size and shape of a large pigeon's egg, or sometimes twice that size, and then more globular; when fully ripe, in such as we have seen, it has been of a dingy damascene colour, with a yellowish green pulp and black-red seed. The flavour is thought to partake of that of both the melon and the strawberry; but to us the combination seems much inferior to either of these fruits singly. In beauty it is evidently behind the more common and hardy *cærulea*, introduced from the Brazils nearly a century afterwards. We have purposely omitted the standing synonyms from the works of Jacquin and Cavanilles; the figure in the first appearing either to belong to another species, or else to have been chiefly put together from description, if not fancy; that in the second is manifestly copied from the first.

In the hothouse the stem never dies down to the ground. Flower-bearing *branches* angular, green, fistular, blossoming in succession as they lengthen. *Leaves* deeply three-lobed, of a lightish, but bright, green, as well as the branches sometimes slightly villous, lobes oblong-ovate, acuminate, glandularly serrate, with the teeth curved downwards at the point, middle lobe largest: *petioles* biglandular. *Stipules* small, subulate. *Flowers* fragrant axillary, solitary: *peduncle* triquetral, shorter than the leaf. *Involucre* small, near to the flower, 3-leaved, equal, connivent, scarcely reaching beyond the tube of the calyx; *leaflets* rhomboidally ovate, lanceolate, glandularly serrate. *Calyx* about an inch and half deep, thick, spongy, outwards deeply dented in the centre of its base, for about one third campanulate, thence 5-parted and rotate; *segments* oblong, whitish within and flat, outwards green and keeled, keel deep terminated by a falcately extended mucro or point. *Petals* inserted at the mouth of the campanulated

tube of the calyx, and nearly as long as the segments, but much narrower and thinner. *Outermost rays* of the crown as long as the petals, numerous, close, divaricate, filiform, flexuose, white variegated with violet-red; *innermost* scattered, resembling small papillæ or tubercles. *Germen* green, elliptical, quite smooth. *Nectary* divided by an incomplete partition or septum.

The present specimen differs slightly from those described by most authors, where the leaves are somewhat villous, especially at the nerves, the germen pubescent, and the outer surface of the fruit yellow; while in ours the leaves had in general scarcely any pubescence, the germen was smooth, and the fruit when completely ripe had changed at the surface from yellowish green to dingy purple, of nearly the colour of that of the purple Egg plant. Differences, however, affording no grounds to suspect a specific difference, when we find that in every other respect the plants agree minutely with each other, and are yet so remarkable and peculiar in their general appearance and habit. We have compared our plant with the prototype of the species of the Flora Virginica preserved in Clayton's Herbarium, in Sir Joseph Banks's Library, and have no doubt of their specific identity. As the plant is often cultivated in a greenhouse, and sometimes in the open ground, specimens in those situations have a narrower and far less luxuriant foliage than is found in such as, like the present, have grown in the border of a hothouse.

The drawing was made from a plant in the collection of Lord Tankerville, at Walton upon the Thames, where the fruit ripens in abundance. We have divided the species into two varieties, which however we believe to arise in part from the difference in the places of cultivation, for the convenience of those who may wish to keep them specifically asunder.

Young seedling plants at Messrs. Colville's in the King's Road, Chelsea, had nearly all undivided leaves, altho' near a foot high; the uppermost were just beginning to break into lobes.

a The flower dissected vertically. *b* The berry (or gourd, Pepo) dissected horizontally.





Agrostis edwardsii det. *Det. by J. R. R. R. R. 170 P. R. R. R. Nov. 1. 1816* Smith, L. R. R.

CRYPTARRHENA lunata.

Crescent-lipped Cryptarrhena.

GYNANDRIA MONANDRIA.

Nat. ord. ORCHIDÆÆ. *Jussieu gen.* 64. *Brown prod.* 309.*Div. IV.* *Anthera terminalis mobilis decidua.* *Massæ pollinis* demùm *cereaceæ.* *Brown in Hort. Kew. ed.* 2. 5. 205.*CRYPTARRHENA.* *Petala* 5, distincta *patentia.* *Labellum* *ecalcaratum: lamina dilatata explanata.* *Columna libera, aptera.* *Anthera* *apice cucullato columnæ inclusa, porrecto-adscendens.* *Massæ pollinis quatuor.* *Brown MSS.**Cryptarrhena lunata.* *Brown MSS.**Herba humilis. Folia radicalia numerosa, multifariam ambientia, patentia, crassiuscula, carnosa, remotius nervosa, exteriora recumbentia, subovato-lanceolata, acuminata, subtriuncialia, latè virentia, interiora erectiora, lineari-lanceolata. Caulis longior istis, striato-teres, crassitudine pennæ corvinæ, infernè foliolis paucis lineari-subulatis erectis vagè stipatus. Spica subbiuncialis, inclinata, laxius digesta, nuda. Flores viridi-lutei, vix tertiam partem uncie transversi.*

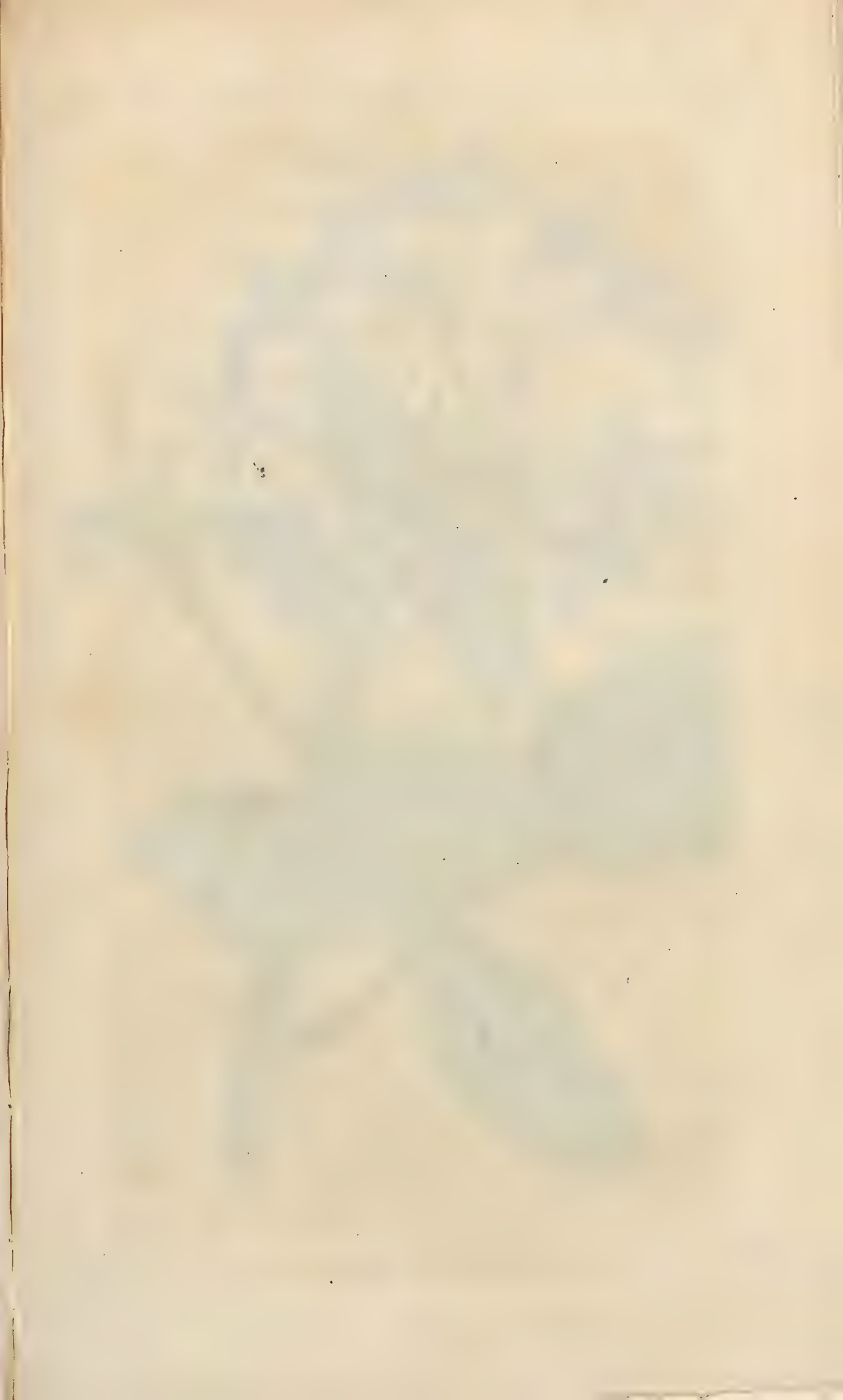
We had not the opportunity of inspecting the flower of this plant after the drawing was made; but to the greater advantage of Botany, Mr. Brown has had that opportunity. He has found it an unrecorded vegetable, and to possess features so distinct from those already known of the tribe, as to make it expedient that it should form the foundation of a new generic group.

All we know of its history is, that it was lately received by Messrs. Lee and Kennedy, of the Hammersmith nursery, from Jamaica, and that it flowered in one of their hothouses in the course of last summer.

A humble herbaceous species; and, judging by analogy, probably parasitic. *Leaves* radical, numerous, ambient, multifariously patent, fleshy, thickish, loosely nerved, of a bright grass-green colour: outer recumbent broadest, lanceolate, and somewhat ovate, acuminate, three parts of an inch across, almost three inches in length; inner more up-

right, linear-lanceolate. *Stem* higher than these, simple, round, angularly striate, bearing a few linearly subulate leaflets, placed irregularly towards its base. *Spike* many-flowered, loose, bent. *Corolla* hardly the third of an inch over, green and yellow; and, as we are told, having scarcely any scent.

a The outline of the front view of a magnified flower, with the lid of the anther forced back, showing the locuments. *b* The outline of a magnified flower viewed sideways, showing the cowed part of the column which covers the anther.





Sybil Edwards del

Prof. J. R. Rogers, Esq. Providence, Nov. 1 1816

Smith and Co

IXORA grandiflora.

Large-flowered scarlet Ixora.

TETRANDRIA MONOGYNIA.

Nat. ord. RUBIACEÆ. Jussieu gen. 196.

Div. VI. Fructus monocarpus bilocularis dispermus, Folia opposita.

IXORA. Suprà vol. 2. fol. 100.

I. *grandiflora*, foliis sessilibus, oblongis, acutis, basi cordatis; segmentis calycis acutis; laciniis corollæ ovali-lanceolatis, acutis.

Ixora coccinea. Lin. sp. pl. 1. 159; (exclusis synonymis Osbeck, Rumph, et Burman). Lamarck encyc. 3. 343.

Ixora foliis ovalibus semiamplexicaulibus, floribus fasciculatis. Linn. Flor. zeyl. 22; (affirmante specimine archetypo Herbarii Hermanniani in Mus. Banks.)

Jasminum indicum, lauri folio, inodorum umbellatum, floribus coccineis, Pluk. alm. 196. t. 59. fig. 2.

Ratambala, s. Cerasus sylvestris zeylanica pavonina umbellata latifolia, floribus coccineis holosericeis. Herman. zeyl. 36.

Schetti. Rhede mal. 2. 17. t. 12.

Frutex 4-6-pedalis, erecto-ramosus. Folia distantèr decussata, sessilia, subcordato-oblonga, acuminata, nitida, 3-4-uncialia, sesquiunciam lata margine. Stipulæ ovato-subulata, carinata. Cymæ terminales, subsessiles, breves, multifloræ, simpliciores, trichotomæ; pedunculi curti, colorati, trifidi, infra trichotomiam bibracteati, pedicellis brevissimis, medio trium ebracteato; bractæe duriusculæ. Cal. parvus, coloratus, 4-fidus, segmentis campanulato-conniventibus, acuminatis, patulis. Cor. pro genere magna, miniato-coccinea, extus opacata lanugine adeo minutâ ut vix nisi oculo armato percipiendâ; tubus sesquiuncialis, laciniis limbi aliquoties longior.

The present is the species intended by Linnæus, in his Flora Zeylanica, for *IXORA coccinea*, as proved by the prototype-specimen in the Hermannian Herbarium at Sir Joseph Banks'. Another species however has long and generally borne its name in the european collections, and filled its place in the recent botanical works. For instance, in the late edition of the Hortus Kewensis and Curtis's Botanical Magazine; and we should think it misapplied criticism, to attempt to reinstate a name on the score of priority, in face of a prescription so grounded. We have therefore corrected the error, by restoring the synonyms we deem to belong to the species; but have adopted a new specific title. Osbeck, adduced as a synonym by Linnæus,

evidently has another plant in view, probably that figured in the Botanical Magazine, the *IXORA coccinea* of our gardens.

IXORA grandiflora has been recently introduced by Sir Abraham Hume, to whom, and Lady Amelia Hume, our collections owe many of their handsomest and most curious vegetables.

Native of various parts of India, where it is said to flower nearly the year round. It forms a shrub from four to five feet high, with a stem of inconsiderable girth, much branched, and covered with a reddish brown bark. *Leaves* opposite decussated at largish intervals, sessile, 3-4 inches long, $1\frac{1}{2}$ -2 broad, oblong, pointed, subcordate at the base, smooth. *Stipules* ovate, subulate, keeled. *Cymes* very short, loose, but many-flowered, trichotomous: *peduncles* short, coloured, trifid, with two small hard *bractes* beneath the trichotomy, the middle *pedicle* of the three which form it, having no bracte. *Flowers* vermilion, large for the genus, more than an inch and half long, scentless. Segments of both *Calyx* and *Corolla* acute, those of the latter lanceolate. In India the bloom is highly prized for its beauty, and according to Rheede, esteemed an acceptable offering in the worship of *Ixora*, a Malabar idol, which has afforded to Linnæus the generic name. The purple berries, or berried capsules, are about the size and form of a cherry, and are said to be the food of the peacock; whence the shrub has been sometimes called *Cerasus pavonina*.

The drawing was made last August from a plant in the hothouse at Sir A. Hume's, Wormleybury, Hertfordshire.

a Pistil.



VALERIANA Cornucopiæ.

Purple Valerian.

TRIANDRIA MONOGYNIA.

Nat. ord. DIPSACEÆ. Jussieu gen. 194.

Div. II. Flores distincti.

VALERIANA. Cal. simplex superus 5-6-(3-4)-dentatus, aut marginatus subinteger maturatione in pappum plumosum evolvendus. Cor. tubulosa basi calcarata aut gibba, limbo 5-fido æquali aut rariùs inæquali. Stam. sæpè 3, rariùs 1-2 aut 4. Stig. 1-3. Sem. papposum, aut capsula 2-3-loc. 2-3-sperma (modò loculamento 1 fertili) apice nuda aut calycinis dentibus coronata. Caulis herbaceus. Folia opposita. Flores plerùmque corymbosi terminales. Jussieu l. c. 195.

V. Cornucopiæ, (diandra, irregularis;) foliis ovatis nervosis, radicalibus spathulatis, caulinis sessilibus. Vahl enum. 2. 19; (sub FEDIA).

Valeriana Cornucopiæ. Linn. sp. pl. 1. 144. Mill. dict. ed. 8. n. 12. Desfont. atl. 1. 29. Hort. Kew. 1. 51. ed. 2. 1. 76. Fl. græca. 1. 23. t. 32. Lamarck encyc. 8. 312.

Fedia incrassata. Mærch meth. 486.

Fedia Cornucopiæ. Gärtn. sem. 2. 37. t. 86. f. 3. Vahl loc. cit. Lam. et Decand. fl. franç. 4. 246.

Valerianella cornucopioides. Rivin. monop. t. 5.

Valerianella cornucopioides, flore galeato. Tournef. Inst. 133.

Pseudo-valeriana cornucopioides annua purpurea. Moris. hist. 3. s. 7. 104. t. 16. fig. 27.

Valeriana indica. Clus. hist. 2. 54.

Radix fusiformis. Caulis ramosissimus, patens, teres, glaber, carnosus, foliosus. Folia opposita, subcarnosa, lævia, ovato-oblonga, obtusa, basi imprimis dentata; inferiora petiolata; superiora subsessilia, basi angustata. Cymæ terminales, subtrichotomæ. Pedunculi incrassati, carnosi. Bractææ imbricatæ, lanceolatæ, ciliatæ. Flores erecti, rosci. Cal. superus, bipartitus; laciniis patentibus, ovatis, acutis, persistentibus. Corollæ tubus gracilis, geniculatus, subtùs brevissimè calcaratus; limbus bilabiatus; 5-fidus, labio inferiore basi pallido, trilineato. Stamina 2, erecta, exserta, longitudine ferè limbi: anth. cæruleæ. Stylus longitudine staminum. Stigma bifidum. Caps. elliptica, ventricosa, 3-locularis, calyce coronata: sem. solitaria, oblonga. Smith in Flor. græc. ad loc. cit.

A genus consisting of species naturally connected in respect of their general features, yet curiously inconstant in the form and numbers of the parts of both flower and fruit, and consequently not easily framed together by a technical character. Varies through the different species from with one to with 2, 3, and 5 stamens; from with a globular,

to with an emarginate or a trifid stigma; from with a nearly obsolete calyx, to with one deeply five-cleft; from with a spurred, to with a spurless tube; from with a regular, to with an irregular limb, from with no capsule, to with one that is thick and three-celled. It has been drafted by Gærtner, who has collected a portion of the species, into a separate genus, he calls *FEDIA*, to which our present plant belongs; but the alteration has not been adopted by Mr. Dryander, in the late edition of the *Hortus Kewensis*.

A hardy annual plant, not very common in our gardens, where, however, it has been cultivated ever since 1596. Native of the department of the Var in France, of Spain, Sicily, Greece, and Barbary. From three or four inches to a foot or more in height. *Root* fleshy, fusiform. *Stem* subdivided into many branches, patent, round, smooth, fleshy, leafy. *Leaves* opposite, somewhat fleshy, smooth, ovate-oblong, obtuse, indented, at the base principally; lower ones petioled; upper ones subsessile, narrowed at the base. *Cymes* terminal, subtrichotomous. *Peduncles* thickened, fleshy. *Bractes* imbricate, lanceolate, ciliate. *Flowers* upright, rose-coloured. *Calyx* superior, bipartite; with patent ovate, acute, persistent segments. Tube of the *corolla* slender, geniculate or kneed, very shortly spurred beneath; limb bilabiate, 5-cleft, with a pale lower lip marked with 3 lines. *Stamens* 2, upright, extruded, almost the length of the limb: *anthers* blue. *Style* the length of the stamens: *stigma* bifid. *Capsule* elliptical, ventricose, three-celled, crowned by the calyx: *seeds* solitary oblong.

The drawing was made from a plant in the collection of Lord Tankerville, at Walton-upon-Thames.

a An entire flower. *b* Pistil.



Epilobium

Parkby A. Rutguy V 9. Piccadilly Nov. 1816

Smith

UROPETALON glaucum.

Grey-leaved Uropetalon.

HEXANDRIA MONOGYNIA.

Nat. ord. ASPHODELI. Jussieu gen. 51. Div. IV. Flores spicati. Radix bulbosa. Cor. sexpartita, basi staminifera.

ASPHODELEÆ (includentes ASPARAGOS plerosque Jussieu). Brown prod. 274.

UROPETALON. ZUCCAGNIA. Bodin in Schrad. journ. fur die bot. 1. 204. DIFCADI. Usteri ann. der botan. St. 2. 13. Inflor. scaposa, simplex, racemoso-spicata, bracteato-distincta. Cal. O. Cor. infera, nutans, tubuloso-sexfida, limbo subduplici, laciniis 3 includentibus intimas 3 erectiores seorsim conniventes, cunctis internè connatis v. rariùs solis intimis, extimis reflexis et sæpiùs caudatis. Fil. adnata, inclusa: anth. verticales à medio affixæ, introrsum versæ. Stylus crassiusculus, tereti-3-gonus, trisulcus, ex 3 filiformibus solubilibus coarctatis. Caps. erecta, membranacea, elliptica, trilobato-trigona, lobis aliè compressis, 3-loc., 3-valv., valvis septiferis margini internæ utrinque seminiferis. Sem. numerosa, cumulata, complanata, testâ nigrâ, nitidâ.

Bulbus tunicatus. Bracteæ simplices, membranosæ. Folia plura, crassiuscula, variè lorata, ambientia. Genus inter SCILLAM et ALBU-CAM veniens; necnon hinc DRIMLE accedens.

U. glaucum, foliis lato-lanceolatis, erectis, scapo multò brevioribus; pedunculis longissimis. Burchell MSS.

Bulbus ovato-globosus. Folia plurima (septena circà), sesuncialia ad pedalia, 2-3-plo breviora scapo, basi convoluto-amplexa, erecta, lorato-oblonga, lanceolata, ac tota planta glauca, plana, exteriora latiora latere utroque subreflexa, interiora angustiora cuspidata. Scapus erectus, parùm flexuosus, 2-3-pedalis, crassitudine ferè pennæ scriptoriæ majoris, terminatus racemo spicatum educto, multifloro, irregularitèr et remotè sparso, patentissimo; pedunculis strictis, 1-floris, flore duplo longioribus magisve, suffultis bractea lineari-lanceolatâ sphacelatâ, erecto-patentibus ad divaricatos. Cor. viridi-fulvescens, externè glauco rore canescens, unciam ferè profunda, tubuloso-campanulata, laciniis oblongis, obtusis, intus glabratis, ad medium usque conferruminatis, indè solutis, limbi extimi reflexo-patentibus extra apicem parietis internæ caudam educentibus ipsis æquilongam crassam subulatam compressam, limbi intimi erectiùs conniventibus, patulis, ecaudatis. Fil. brevissima, planiuscula: anth. oblongæ, luteæ, mucronatæ, sagittatæ. Germ. 3-sulcum. Stig. 3, replicata, inclusa.

An unrecorded species found by Mr. Burchell near Klaarwater, a village beyond the Gariep or Orange river, at the Cape of Good Hope. By combining with it two species, to which we have added a third, its discoverer has

instituted a new genus, and one that relieves LACHENALIA and SCILLA, each of an heterogeneous associate, by receiving the *viridis* of the former and the *serotina* of the latter. It consists at present of;

glaucum. *The subject of this article.*

viride. LACHENALIA *viridis*. Hort. Kew. ed. 2. 2. 286.

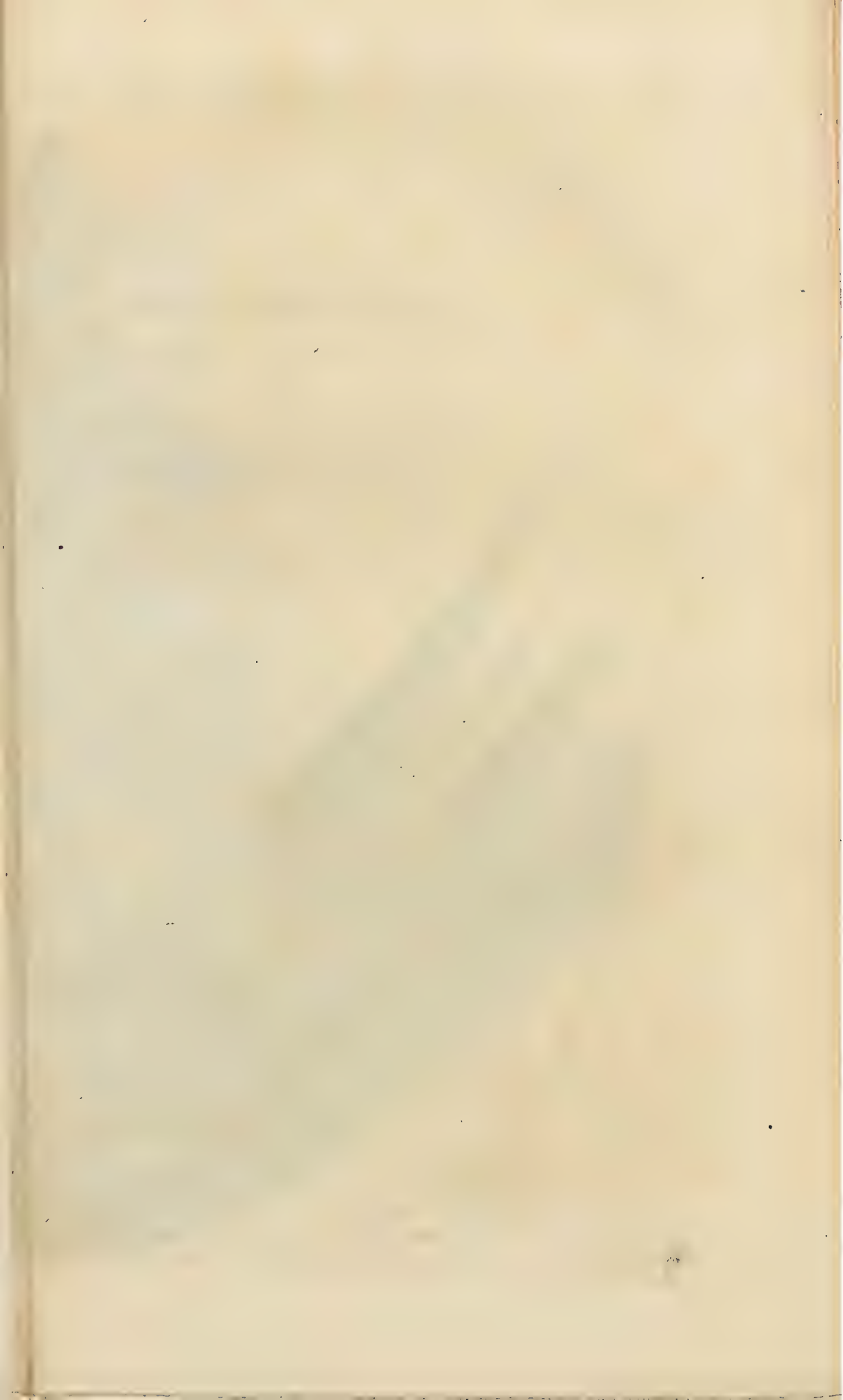
crispum. Burchell MSS.

serotinum. SCILLA *serotina*. Curt. mag. 859, 1185.

L. viridis had already been made the foundation of a separate genus, by the title of ZUCCAGNIA; this was not however adopted, and the name has been applied to another family of plants. *S. serotina* had likewise suggested a new genus, by the name of DIPCADİ; this was also neglected. To us the present genus appears a most useful one, and adapted to receive some of the species which do not conveniently fall into the ranks of either SCILLA, LACHENALIA, or ALBUCA, yet partake of the features of each.

Bulb tunicate, ovately globular. *Leaves* about seven, from six inches to about a foot high, 2-3 times shorter than the scape, upright, lorately oblong, lanceolate, glaucous like the rest of the plant, flat, convolute, and sheathing at their base, *outer ones* the broadest and reflectent at the sides. *Scape* upright, scarcely flexuose, 2-3 feet high, about as thick as a large pen. *Raceme* long, spiked, many-flowered, irregularly and distantly scattered, spreading horizontally; *peduncles* straight, two or three times longer than the flower, from upright to divaricate, with a linear-lanceolate sphacelately membranous *bracte* at their base. *Corolla* of a greenish tawny colour, glaucous or clouded with a grey bloom or hoar on the outside, almost an inch in length, tubularly campanulate; *segments* oblong, obtuse, smooth and shining at the inner surface, cohering half way up, then separated, those forming the *outer limb* reflectent, protruding from beneath the apex of the interior coat a thick subulate compressed appendage half as long as the whole segment, those forming the *inner limb* straighter, converging more narrowly, slightly patent, without the appendage, much shorter. *Filaments* very short, inclosed, inserted below the mouth of the tube. *Anthers* mucronate. *Stigmas* 3, enclosed. *Germen* three-furrowed. Bloom scentless.

A greenhouse plant. The drawing was made from one that flowered in August last, in the collection of Mr. Burchell, at Fulham.





Pyd. Edwards. del



HEDYCHIUM angustifolium.

Red Garland-flower.

MONANDRIA MONOGYNIA.

Nat. ord. CANNÆ. Jussieu gen. 62.

SCITAMINEÆ. Brown prod. 305.

HEDYCHIUM. *Anthera duplex.* Filam. (lineare) geniculatum, extra antheram non elongatum. Stylus filamento duplo longior filiformis, tenacissimus, in sulco antheræ receptus. Roscoe in Trans. lin. soc. 8, 342.

H. angustifolium, spica sexfariam decussata patentissima è fasciculis subtrifloris verticillato-ternis: labello didymo.

Hedychium angustifolium. Roxb. corom. 3. t. 251.

Hedychium coccineum. Smith in Rees's cyclop. in loco.

Rhizoma carnosum, perenne, subtuberoso-incrassatum, stoloniferum. Caules erecti, simplices, inflorescentiâ tenis vaginati petiolis fistulosis foliorum. Folia bifaria, patentia, decrescentia: petioli intus trans pedem laminæ membranâ tenui semivaginate ovato-rotundâ ochreati; laminæ ad maximum pedales v. parum longiores, unciam latæ, ovato-lanceolatæ, longè attenuatæ, aristatocuspidadæ, nervis rectis parallelis ascendentibus costâ mediâ utrinque eductis confertè striatæ. Infior. terminalis, composita, spicata, stricta, cylindræa, è fasciculis numerosis rarè quadrifloris, vix excedens folia; rachis robusta, rigida, virens. Spatharum foliola arcuè invicem amplexa, exteriora herbacea, calyci æqualia, interiora membranosa, flores distinguunt. Flores sessiles, subbiunciales, miniati, odorati. Germ. hirsutum. Cal. superus, membranosus, tubulosus, subdiaphanus, $\frac{3}{4}$ partes uncia longus, corollam infra arcuè vaginans, brevè et obtusè 3-dentatus, hinc longius dehiscens, extus rarè pubescens. Cor. 1-pet. tubulosa, resupinata, nitens; tubus teres, uncialis, paulò pennâ passerinâ crassior; limbus duplex, exterior 3-partitus, tantillum longior tubo, laciniis æqualibus, flaccidis, angustè ligulatis, involutis, acutis; interior tripartitus, firmior, difformis, bilabiatus, laciniis lateralibus 2 subbrevioribus lanceolato-linearibus infra attenuatis, mediâ (labello) insidente ungui longo lineari, laminâ latâ obcordato-bilobâ lobis elliptico-oblongis obtusis, suprâ divergentibus. Trunculi thalamei 2, lutei, connati, terethusculi in summo germine. Fil. in tubi ore positum, serè duplo longius labello, crassiusculum, inclinato-porrectum, canaliculatum, corollæ concolor, parum attenuatum. Anth. coccinea, linearis, basi subsagittata, vix $\frac{1}{4}$ partem uncia longa, ex loculis 2 linearibus marginalibus, pro tribus suis partibus adnatis filamentis. Stylus vix filo bombacyno crassior, parum altior stamine. Stig. exiguum, viride, triquetro-infundibuliforme.

The fine natural order of plants to which the present belongs, has been lately illustrated by Mr. Roscoe, the accomplished historian of the Medici. Of this genus, however, only one species, well known in our collections by the specific name of *coronarium*, had fallen under his observation. No other had been recorded until four were added by Sir James E. Smith, in Rees's Cyclopædia, from

specimens collected in India by Dr. Buchanan. We can scarcely doubt, that our plant is the *coccineum* of these, notwithstanding some slight differences in the detail, scarcely indeed exceeding such as might be expected in a description from the dried specimen, when referred to the living. But the identity of our plant with the *angustifolium* of the late Dr. Roxburgh being beyond a cavil, and the account of it having long been written under that title, and now actually printed in the forthcoming fasciculus of the work on the "*Plants of the Coast of Coromandel*," we feel ourselves warranted in adopting it, although not the one first published.

The species was found by Dr. Roxburgh on the coast of Coromandel; by Dr. Buchanan in Upper Nepaul. Recently introduced into this country by Sir Abraham Hume, who has supplied the specimens gathered in his hothouse at Wormleybury from which the present drawing has been made, with his accustomed liberality.

Rootstock fleshy, stoloniferous, perennial. *Stems* simple, upright, sheathed to the inflorescence by the fistular petioles of the foliage. *Leaves* bifarious, patent, *petioles* surmounted within the foot of the blade by a broad rounded-ovate membranous *ochrea*: *blade* seldom exceeding a foot at the longest, ovate-lanceolate, narrow, far-tapered, awned-acuminate, streaked with close-set parallel ascending nerves issuing from each side the midrib. *Inflorescence* substantial, straight, composite, loosely spiked, patent, in six rows, decussated, consisting of numerous 3-4-flowered convolutely sheathed fascicles in whorls of three, the whorls intersecting each other alternately: *rachis* or common peduncle green, smooth (as described in the orange-coloured variety of Sir J. Smith's *coccineum*), rigid, thick, from 3 to 4 inches in height or more, but not overtopping the foliage. *Spathes* rolled closely one within the other, *outer valves* or *leaflets* herbaceous, even with the calyx, *inner* membranous, one to each flower. *Flowers* sessile about two inches long, of a soft vermilion colour, fragrant, but not so richly so as in *coronarium*. *Germen* hirsute. *Calyx* membranous, tubular, semitransparent, 3 fourths of an inch long, closely fitted to the tube of the corolla which it sheaths, shortly and bluntly tridentate, having a deep rent on one side from the edge downwards, thinly pubescent. *Corolla* monopetalous, tubular, shining, of one colour; *tube* an inch long, not thicker than the stem of a

blackbird's quill, *limb* double, *exterior* 3-parted, nearly a fourth longer than the tube, segments equal, linear, narrow, involuted, acute, *interior* 3-parted, reversed, firmer than the outer, irregular, bilabiate, lateral segments rather the shortest of the three, narrowed downwards, lanceolately linear, the centre one or *lip-piece* (the *nectary* of Linnæus) projected on a long narrow linear unguis or footpiece, lamina or blade broad, obcordate, didymously lobed, lobes elliptic, diverging upwards. The two *excrescences* at the summit of the germen, short, connate, roundish, yellow; these are common to the whole order, and are supposed by Mr. Brown to be imperfect stamens. *Filament* nearly twice the length of the lip-piece, robust, channelled, slightly tapered, of the same colour as the corolla. *Anther* double, scarlet, scarcely $\frac{1}{4}$ of an inch long, linear, sagittate at the base, adnate for about $\frac{3}{4}$ parts of its length. *Style* not much thicker than the thread of the silkworm, very tough, little longer than the stamen. *Stigma* small, green, funnel-form, triangular.

Requires to be kept in the tan-bed of the stove; to which beauty, singularity, and long succession of blossom, render it a valuable acquisition.

a An outline of the flower.





Lyst Edwards del

Pub by J. Ridgway, 170, Piccadilly, Decr 11 1816

Smith sculp

ORNITHOGALUM prasinum.

Pea-green flowered Cape Star-of-Bethlehem.

HEXANDRIA MONOGYNIA.

Nat. ord. ASPHODELI. Jussieu gen. 53.

Div. IV. Flores spicati. Radix bulbosa. Corolla sexpartita, basi staminifera.

ORNITHOGALUM. *Inflor.* racemosa, bracteatum distincta. *Cal.* O. *Cor.* infera, regularis, subæqualis, patentissima, emarcidopersistens; raro connivens; nunquam cærulea aut rubra. *Fil.* erectopatentia, subulata, basi sæpè dilatata, alternè latiora. *Stylus* erectus subnullus v. brevis v. setaceo-elongatus. *Stigma* obtusum v. capitato-trilobum. *Caps.* membranacea, oblonga v. ovata, trilobo-trigona, rariùs hexagona, lobis modò compressis, 3-loc., 3-valv. valvis medio septiferis. *Sem.* numerosa in angulo interno loculamenti singuli biseriata, globosà sæpiùs angulosè pressa, rariùs compresso-palcacea; testa nigricans.

Bulbus tunicatus. Folia 1-plurima, carnosula, ambientia, radicalia. Scapus simplex. Racemus spicatum productus, vel corymbosus. Bracteæ solitariae. **SCILLA** dignoscendum tantummodò ob flores nunquam cærulescentes neque rubentes. Differt **DRIMIÀ** ob corollam non infernè conniventem in tubum, et bulbum compactiùs tunicatum.

O. prasinum, foliis glauciusculis, suprà tortis; racemo divaricato, longè pedunculato; filamentis basi ovatis: stylo longiore germine.

Bulbus ovatus, integumentis subfuscis. Folia plurima (4-9) erectopatentia, subpedalia, lorato-attenuata, involuto-concava, cuspidata. Scapus glauciusculus, excedens folia, teres. Racemus oblongus, laxis, patentissimus; pedunculis strictis, 2-3-plo longioribus corollâ: bracteis membranosis, lanceolatis. *Cor.* horizontem respiciens, stellato-patens, unciam penè transversa, glaucovirens, inodora: lac. subæquales, oblongæ, obtusæ, vix 2 lineas latæ, exteriores sublatiores depressiores concaviusculæ apice inflexæ, interiores planiores apice glanduloso-albicantes, versùs basin utrinque deflexæ. *Fil.* $\frac{1}{2}$ parte breviora laciniis, alba, ovato-subulata, plana, alterna basi ventricosiora: anth. breves, luteæ, incumbentes. Germ. virens, ellipticum, 3-lobum, striâ per dorsum cujusque lobi ductâ, et nervo prominulo in sulco singulo lobos intercipiente: stylus tristriato-setaceus, longior germine, albus, apiculo stigmatoso pubescente exsuperante stamina.

The boundary which separates **ORNITHOGALUM** from **SCILLA**, as these genera have been handed down to us, depends upon a feature usually considered the least characteristic of any among vegetables, viz. the colour of the flower. There seems to be an understanding among botanists that no blue or red flower can belong to **ORNITHOGALUM**, which genus has become the receptacle of the plants with any other coloured flower, that would else fall as con-

veniently into the ranks of *SCILLA*. A sort of compromise which has evidently arisen from respect for long-established names, applied when only few and distant species were known. Subsequently discovered species, as is often the case, have in length of time connected the genera so closely as to leave no distinction but the too arbitrary and instable one of colour. In *SCILLA* the blue often varies to white; when all distinction ceases. The genera will one day be united, or else divided into smaller groupes.

The present is an unrecorded plant, recently introduced by Mr. Burchell, who found it within the colony at the Cape of Good Hope, not far from Graaf Reynett. It is near akin to *suaveolens* and *odoratum*, but differs in having an entirely green flower which has no scent, by a glaucous foliage which is generally twisted towards the upper part, and by filaments with an ovately dilated base.

Bulb ovate with light brown integuments. *Leaves* from 4 to 9, upright, patent, nearly a foot high, tapering from near the base, pointed. *Scape* little higher than these, slightly glaucous, about the thickness of a pen. *Raceme* many-flowered, loose, divaricate; *peduncles* straight, two or three times longer than the corolla: *bractes* membranaceous, lanceolate. *Corolla* fronting towards the horizon, nearly an inch across, stellate, of a green colour resembling that of the inside of the Pistachio-nut; segments nearly equal, oblong, obtuse, scarcely two lines broad, *outer ones* rather broadest, more depressed, slightly concave, inflectent at the end, *inner* flatter, glandularly thickened and whitish at the ends, sides deflected towards the base, so as to give them the appearance of being unguiculate. *Filaments* about one third shorter, upright, patent, white, ovate-subulate, flat, alternately wider, rather higher, and more broadly ovate at the base. *Germen* green, elliptically three-lobed, with a streak down the back of each lobe, and a prominent nerve intervening between the lobes: *style* setaceous, three-streaked, longer than the germen, white: *stigma* obtuse, pubescent, overtopping the stamens.

The drawing was made at Mr. Burchell's, Fulham, where several specimens of the species flowered in August last. A hardy greenhouse plant.





Spil. S. Edwards. del.

Pub. by S. Ridgway 170 Piccadilly Dec. 1. 1816.

Smith. Sc.

HYPOXIS obtusa.

Mr. Burchell's Hypoxis.

HEXANDRIA MONOGYNIA.

Nat. ord. NARCISSI. *Jussieu gen.* 54. *Div.* III. Genera Narcissis non omnino affinia.

ASPHODELEÆ. *Brown prod.* 274. *Div.* Genera inter Asphodeleas et Amaryllideas media.

HYPOXIS. *Inflo.* fistuloso-pedunculata. *Cal.* 0. *Cor.* supera, hexapetalo-partita, regularis, æqualis, explanata, firmula v. coriacea, persistens. *Fil.* disco glanduloso corollæ infixæ, breviter: *anth.* majusculæ, sagittatæ, erectæ. *Stylus* crassus, brevis: *stig.* 3, verticalia, adnata, anticè sulcata, unita v. soluta. *Caps.* oblongiuscula, trigona, triloc., polysperma, evalvis, basi angustior: *sem.* subglobosa v. angularia, affixa angulo interno loculamenti; *testa* nigra, sæpius punctatâ.

Radix rhizoma *bulbiceps polymorphum*, interdum *tunicatus* bulbus includens rhizoma. *Folia* ambientia, plurifaria, radicalia, sæpius canaliculato-trigona, rigidiuscula. *Scapi* sæpè plures successivi. *Pedunculi* bracteati. *In capsulâ maturâ* modò obliterantur septa, quæ priùs evidentissima. *Sem.* modò biseriata, *pedicellato-funiculata*.

H. obtusa, rhizomate cylindrico, conico; foliis margine et carinâ hirsutis; scapo hispido, plurifloro, subracemoso: corollæ laciniis obtusis. *Hypoxis obtusa.* *Burchell MSS.*

Rhizoma bulbiceps magnum, annulatum, veteribus basibus setosum. *Folia* plurima (10), fasciculata, erecto-patentia, lineari-lanceolata, rigida, carinato-triquetra; exteriora torta in spiram, interiora longiora angustiora, suboctouncialia, ad maximum $\frac{3}{4}$ partes uncie lata, longè acuminata. *Scapus* strictus, inclinatus, teres, foliis subbrevior. *Flores* lutei, inodori, pauci, laxius et interruptè racemosi, superni subcymoso-fastigiantes: *pedunculi* floribus 2-3-plo breviores, æquales bracteis lineari-subulatis carinatis. *Germ.* breve, hirsutum, continuum pedicello. *Cor.* intus nitens; laciniis elliptico-oblongis, exterioribus subangustioribus, parva mucrone præfixis, interioribus utrinque deflexis. *Anth.* lanceolatæ, 3-plo longiores filamentis subulatis flavis. *Stylus* duplo brevior staminibus, conicus, triqueter; stigmata coadunata.

An unrecorded species discovered by Mr. Burchell during his late travels in the interior of Southern Africa, on the sandy plains in the vicinity of Litákoon, the chief place of the Bachapin nation, distant about 1000 miles N. E. from Cape Town.

The rootstock of most tunicated bulbs is enclosed within concentric laminæ, and forms the nucleus of the bulb; but in this genus it constitutes far the larger portion of the

whole, and bears the bulb at its summit, or in the centre when flattened, in the shape of a bud, and is thence termed bulbicipitous. In the present species the rootstock is of considerable magnitude, cylindric and conical, marked with annular scars, and bristled with the fibrous remnants of the bygone foliage. *Leaves* many (10), fasciculate, upright, patent, *outer ones* twisted, *inner* longest, narrowest, about eight inches high, linear-lanceolate, tapering from near their base, triangular, with a sharp keel and channel, about three fourths of an inch over at the broadest, thinly pubescent, except at the edges, where they are thickly so. *Scape* stiff, inclined, round, hispid, rather shorter than the inner leaves. *Flowers* few, scentless, of a shining yellow colour within, disposed in a loose irregular raceme, upper ones subfastigiate: *pedicles* equal to the linear-subulate keeled *bractes*, two or three times shorter than the corolla. *Germen* short, roughly pubescent, continuous with the pedicle. *Corolla* persistent, firm; segments nearly equal, elliptically oblong, obtuse, *outer* rather narrowest, with a small subpubescent point, *inner* deflectent at each side. *Anthers* lanceolate, three times longer than the subulate filaments, yellow. *Style* half the length of the stamens, conical, triquetral: *stigmas* united.

HYPONIS borders closely upon GAGEA, a genus which Mr. Salisbury has judiciously detached from ORNITHOGALUM; but in that the corolla is inferior, below the germen.

The drawing was taken from a plant which flowered in Mr. Burchell's collection at Fulham in August last. Requires the shelter of the greenhouse.





L. Smith del.

Printed by J. Ridgway 170 Piccadilly, Dec 1 1846

L. Smith del.

SANSEVIERA zeylanica.

Ceylon Bow-string-hemp.

HEXANDRIA MONOGYNIA.

Nat. ord. ASPARAGI. Jussieu gen. 40. Div. I. Flores hermaproditæ, germen superum.

SANSEVIERA. LIRIOPE; Lour. SALMIA; Cavan. ALETRIS; Gart. Cal. O. Cor. infera, tubulosa, limbo sexpartito reflexo. Fil. summo tubo imposita, patentia; haud medio incrassata. Stig. capitellatum v. crassum et trifidum. Bacca 3-loc., loculamentis monospermis, uno vel et altero sæpè oblitteratis.

Herbæ perennes, stoloniferae. Rhizoma crassum, repens: scapus radicalis, compositè racemosus v. spicatus floribus in fasciculos numerosos proximè sparsos segregatis, aut simplicissimè spicatus. Folia omnia radicalia, pluri-v. bifaria, sæpè crassa atque dura, carne fibrosâ. Egrè dignoscitur DRACENÂ nisi ob filamenta non fusiformia, sed æquabiliter crassa, tum ob folia et caulem rhizomati insidentia, non elevata caudice fruticoso.

S. zeylanica, foliis glabris oblongis acutis planis et lineari-lanceolatis canaliculatis, stylo longitudine staminum, bracteis pedunculi longitudine. Willd. sp. pl. 2. 159; (excl. synonymis Thunb. Cavan. et Lour.).

Sansevieria zeylanica. Hort. Kew. ed. 2. 2. 278; (excl. synonymo Roxb. corom.). Redouté liliac. 290.

Aletris zeylanica. Mill. dict. ed. 8. n. 4.

Aletris hyacinthoides. α. zeylanica. Linn. sp. pl. 1. 456. Hort. Kew. 1. 464.

Aloë hyacinthoides. α. zeylanica. Linn. sp. pl. ed. 1. 1. 321.

Aloë zeylanica pumila, foliis variegatis. Comm. hort. 2. 41. t. 21.

Pluk. alm. 19. t. 256. fig. 5.

Folia plurima, fasciculata, erecto-patentia, rigida, crassa, sub-9-uncialia, lanceolato-subulata, à basi transversè unciali sensim attenuata, involuto-canaliculata, glauca, undata maculis transversis alternis atro-virentibus latis, cartilagineo-marginata, exteriora breviora. Caulis teres infernè versùs foliolis nonnullis vagis bracteaceis. Racemus compositus, numerosus, cylindricus, plurimum exsuperans folia: florum fasciculi pauciflori, subsessiles v. brevè pedicellati, proximi, bracteati. Cor. sesquiuncialis, ex viridi alba, angustius tubulosa, semisexfida, infrà 6-striata, attenuata et cum pedicello circumscissè articulata: limbi lac. ligulatae, æquales, subcarinatae, obtusae, infrà utrinque crispulæ, apice incurvo-cavatae, mucrone brevi pruinulosâ. Fil. limbo $\frac{1}{3}$ parte breviora, patentia, alternè breviora. Anth. incumbentes. Germ. loculis 1-spermis. Stylus corollæ æqualis, inclinatus, filamentis crassior, 3-striato-filiformis; stigmate brevissimè 3-lobo, obesiuculo.

The nearly allied species guineensis, we believe is known to bloom frequently in our collections, but the pre-

sent very rarely. Miller never succeeded in flowering it; and was told at Amsterdam, where it had been long cultivated, that it was never known to blossom at that place. A very common plant in the hothouses of this country, and kept for the sake of the curious foliage; the present, however, is the only one of which we have seen the inflorescence. Introduced by way of Holland about 1731. The synonym adduced from Dr. Roxburgh's work, in the late edition of the Hortus Kewensis, seems to belong to a very distinct species, the leaves in that being longer than the stem, linear, caudate, not glaucous, and described as acquiring the height of 3 or 4 feet. It has altogether a very different aspect from *zeylanica*. The *SALMIA spicata*, adduced by Willdenow, plainly belongs to *guineensis*; the *LIRIOPE* of Loureiro to neither. The english generic denomination is adopted from the use, to which the fibres of the foliage of one of the species are said to be applied in India.

The genus borders hard upon *DRACÆNA*, and is principally distinguished from it by not having fusiform filaments, nor leaves and stem supported by a frutescent caudex or trunk. Species of it belong to India, China, and, as said, to Guinea. Thunberg and Mr. Burchell found two at the Cape of Good Hope, one of which is very near to *guineensis*, if not the same, and the other to *zeylanica*.

The *leaves* of our plant seldom exceed 8-9 inches in height, and are about one and a half over at the widest part, broadly subulate, involutely channelled, of a glaucous hue, variegated by broad dark green undulated alternate bars which cross from one side to the other, bordered by a narrow cartilaginous rim. *Stem* round, upright, higher than the foliage; *raceme* numerously flowered, cylindrically elongated, composed of closely scattered few-flowered shortly pedicled bracteate fascicles. *Corolla* greenish white, about an inch and half long, narrow, tubular, divided in six parts to the middle, tapered towards the base, connecting by a jointlike constriction with the pedicle; segments divaricate, narrow, linear, equal, slightly keeled, obtuse, finely curled at each edge below the middle, incurved at the apex, with a small point. *Filaments* patent, about one third shorter than the limb. *Cells* of the *germen* one-seeded. *Style* equal to the corolla, inclined, thicker than the filaments. *Stigmas* three short obtuse lobules.

The drawing was taken at the late Mr. John Hall's, at Notting Hill.



Sylva Edwards Del. Bot. by J. Rulphs 1816

Inc. 5. 1816 Smith's

PANCRATIUM maritimum.

Sea-Pancratium, or Daffodil,

HEXANDRIA MONOGYNIA.

Nat. ord. NARCISSI. Jussieu gen. 54. Div. II. Germen inferum.

AMARYLLIDÆ. Brown prod. 296. Sect. I.

PANCRATIUM. Suprà vol. 1. fol. 43.

P. maritimum, spatha multiflora, foliis lineari-lanceolatis, nectarii dentibus 12 non staminiferis. Willd. sp. pl. 2. 42; (exclusis synonymis plantarum indicarum et americanarum).

Pancratium maritimum. Linn. sp. pl. 1. 418. Cavan. ic. 1. 41. t. 56; (excl. syn. Milleri). Hort. Kew. 1. 411. ed. 2. 2. 219. Salisbury in Trans. linn. soc. 2. 70. t. 9. Desfont. atl. 1. 283. Redouté liliac. 8. Lam. et Decand. fl. franç. 3. 230. Flor. græc. t. 309.

Pancratium maritimum. Ger. emac. 173. 3.

Pseudonarcissus maritimus albus, *Pancratium* vulgò. Park. parad. 106, t. 107. fig. 5.

Heimerocallis valentina. Clus. hist. 1. 167.

Bulbus tunicatus, subglobosus, integumentis fuscis. Folia plurima (8), ligulata, angusta, concaviuscula, erecta, subbifaria, longiora scapo, semunciam transversa, glaucissima, estriata, dorso convexiuscula, acumine brevi obtusa terminata. Scapus sesquipedalis vel ultra, compresso-teres, glaucus, estriatus. Spatha bivalvis, 4plo ferè brevior floribus, sphacelata, lanceolata. Umbella 2-7-flora v. ultra subsessilis, v. pedicellis crassis brevissimis. Flores longi, albi, fragrantissimi: germ. oblongum, obtusè trigonum, glaucum; tubus corollæ virens, ampliatus in faucem turbinatam, 3-4-uncialis; limbus brevior tubo; lac. recurvo-stellatis lineari-lanceolatis infernè longè cum coronâ concretis; interioribus sublatioribus ad latera tenerioribus atque subdiaphanis, tantummodò ex striâ mediâ externè virentibus, exterioribus crassioribus externè omninè viridia; corona ampla, unâ quartâ parte brevior limbo cui longissimè adnata, turbinato-cylindracea, 12-fida, dentibus angularibus æqualibus. Stam. brevissima, conniventia, parùm longiora dentibus coronæ; anth. verticales, subconniventes. Stylus corollâ parùm brevior, inclinatus; stigma punctum obtusum.

Native of the South of France, where it is found deeply buried in the sand among the rocks on the sea-shore; of Italy, the Levant, Spain, and the Barbary Coast. Introduced into our gardens nearly two centuries ago, yet very rarely known to blossom in them. We had never seen it in bloom, nor even heard of its having been seen in that state in this country, till the present autumn, when it flowered in Mr. Griffin's collection at South Lambeth, where it had

been treated as a hothouse plant. Miller seems to have mistaken *P. illyricum* for it, as many gardeners of the present day have also done. Its fragrance is exquisite.

P. carolinianum of Linnaeus, an american, and *P. verucundum* of Solander, an east indian plant, had been considered as belonging to this, and included in the synonymy. But Mr. Dryander, whose sagacity is seldom at fault, has dismissed them entirely in the last edition of the Hortus Kewensis. Indeed the fact of the specific identity of three plants of this genus, indigenous of three so widely parted regions, does at least require the voucher of the strictest scrutiny to be securely admitted. And we have no reason to think that such test has been applied in the present case. Mr. Pursh it is true adopts, in his American Flora, the synonym of the european plant for his species, but we believe that he never had an opportunity of deciding their identity from a comparison of living specimens.

Root a roundish tunicated bulb with brown coverings. *Leaves* several, in this individual eight, ligulate, narrow, slightly concave, bifarious, upright, rather longer than the scape, about half an inch across, very glaucous, streakless, slightly convex along the back, shortly and obtusely pointed. *Scape* from eight inches to a foot and half high, cylindrical, compressed, glaucous, unstreaked. *Spathe* of two sphacelated lanceolate valves, almost four times shorter than the flowers. *Umbel* 2-7-flowered or more, nearly sessile, or with very short thick peduncles. *Flowers* large white: *germen* oblong, obtusely triangular, glaucous; *tube* of the corolla green, 3-4 inches long, slightly enlarged towards the faux; *limb* shorter than the tube, segments linear-lanceolate, adhering for a considerable distance to the crown; *inner ones* rather broadest, of a tenderer and semitransparent substance at the sides, thicker and externally green along the middle; *outer ones* substantial, wholly green at the outer surface; *crown* large, wide, about one fourth shorter than the limb to which it adheres, for a great length, cylindrical, narrowed downwards, 12-cleft, with pointed equal teeth. *Stamens* short, connivent: *filaments* scarcely longer than the teeth of the crown.



Syd Edwards. del

Pub. by J. Robinson 470 Piccadilly Dec. 11816

J. Smith. sculp.

CYRTANTHUS collinus.

Narrow glaucous-leaved Cyrtanthus.

HEXANDRIA MONOGYNIA.

Nat. ord. NARCISSI. Jussieu gen. 54. Div. II. Germen inferum.

AMARYLLIDEE. Brown prod. 296. Sect. I.

CYRTANTHUS. Cal. O. Cor. supera, nutans ad cernuam, tubulosa, clavata, curva, regularis, subæqualis: lac. limbi ovato-oblongæ tubo cum fauce triplo breviores v. ultrâ. Fil. fauci tubi inserta apice conniventia, inclusa.

Bulbus et habitus omnino AMARYLLIDIS. Folia bifaria, 3-plurima, angustius latiusve lorata: Spatha communis bivalvis, multiflora. Umbella pedunculata, bracteatum interstincta. AMARYLLIDIS conjunctissimum genus, at limbus corollæ plurimum brevior tubo. Fructum maturum non vidimus; sed germen triloculare atque ovula plura biseriata in loculis.

C. collinus, foliis subtrinis; linearibus, glaucis; pedunculis flore aliquoties brevioribus, laciniis limbi apice rotundatis; staminibus os tubi non excedentibus.

Bulbus globoso-ovatus, integumentis fusciscentibus. Folia 3, infernè versùs attenuata, canaliculato-involuta, subpurpurascens, suprâ explicatiora, vix tertiam uncie lata, acumine obtusulo. Scapus cylindraceus, glaucus, crassitudine pennæ scriptoriæ mediocris, foliis denuò subbrevior. Spatha multi(10)-flora, lanceolata, rubido-sphacelata, pedicellos exsuperans. Umbella cernua miniato-coccinea. Cor. subbiuncialis, lineis senis pallidioribus hexangulari-striata, aliquoties longior pedicello, tubus gracilis in faucem plurimum ampliorem cylindraceam dilatens; limbus campanulato-patens, tubo cum fauce quater brevior, laciniis oblongis obtusatis, interioribus tantulum latioribus, exterioribus mucronulatis. Stylus adscendens; stig. 3, brevia, replicata, ore tubi emicantia. Stam. brevissima, nec excedentia basin limbi, conniventia, alternè subbreviora; anth. incumbentes. Germ. glabrum, brevè oblongum, rotundatè trigonum, striis 6 albis notatum; 3-loc. polyspermum; ovula 2-seriata.

An undescribed species, very recently introduced by Mr. Burchell, by whom it was found on the hills near Genadendal, about 100 miles distant from the chief town at the Cape of Good Hope. It is about the size of, and near akin to *angustifolius*, but differs from that, in having leaves which are glaucous, and not bright green; a germen with six whitish lines that are continued throughout the corolla, which inclines more to a poppy-colour than in *angustifolius*; in having the segments of the limb of an

elliptic oblong form, with a rounded point, not ovate and acute; in having stamens so short as not to elevate the tops of the anthers above the orifice of the faux, not equal in length to the limb; a style which scarcely overtops these, and lastly, in having pedicles two or three times shorter than the flower, not equal to it.

In character the genus scarcely differs from *AMARYLLIS* by any other feature than in having a limb three or more times shorter than the tubular portion of the corolla.

Bulb ovate. *Leaves* three, narrowly lorate, glaucous, narrowed and involutely channelled downwards, flatter upwards, scarcely more than the fourth of an inch broad. *Scape* glaucous, hardly equal to the leaves, about as thick as a middling sized pen. *Spathe* many (10)-flowered, lanceolate, sphacelate, reddish, longer than the peduncles. *Corolla* cernuous, of a deep scarlet or poppy colour, about two inches long, several times longer than its peduncle, marked with six longitudinal equidistant paler lines; *tube* slender, widening into a much broader cylindrical *faux*; *limb* nearly four times as short as the tube and faux together, segments oblong, obtuse, inner rather broadest, outer terminated by a small mucro. *Stamens* exceedingly short, yellow.

The drawing was made from a plant which flowered in Mr. Burchell's collection at Fulham, this autumn. A greenhouse plant.

* The corolla dissected vertically.





Edw. Edwards, del.

Pub by J. Polypay 170 Piccadilly Dec. 1. 1816.

Smith, Sc.

AMARYLLIS hyacinthina.

Hyacinthine Amaryllis.

HEXANDRIA MONOGYNIA.

Nat. ord. NARCISSI. Jussieu gen. 54. Div. II.

AMARYLLIDÆ. Brown prod. 296. Sect. I.

AMARYLLIS. Suprà vol. 1. fol. 23.

Div. bi-multifloræ, irregulares, infundibuliformes, nutantes.

A. *hyacinthina*, umbellâ subsessili: foliis petiolatis laminâ nervosâ; limbi laciniis lateralibus 2 supremis conniventibus: staminum summo remoto.

Bulbus tunicatus, ovatus. Folia 2-3, inflorescentiâ diù tardiora, bifaria, recumbentia, coriaceo-crassa, ovato-oblonga acumine abrupto, plana, nervoso-striata, venis cancellata, saturatè viridia, costâ carinata, uncias 8 longa, 3 circiter lata: petioli crassi, plano-convexi, 3-plo breviores. Scapus longior foliis, cylindricus, estriatus, infrâ rubescens. Spatha sphacelata, 2-valvis, multò brevior floribus. Umbella subcapitato-arctata, 9-10-flora, bracteato-distincta: flores erecto-nutantes, uncias $2\frac{1}{2}$ longi, albo et rubro-cyaneo variegati, inodori. Cor. infundibuliformi-ringens, inæqualis; tubus violaceo-albicans, pluriès brevior limbo, antrorsum curvatus, cylindricus, dorso planius depressus cum nervo prominulo; limbus de fauce brevi nudâ staminigerâ et subtus gibbosâ semiradiato-divaricatus, laciniæ lanceolatae, plus minus undulatae, exteriores 3 unâ cum interiorum imâ mediâ angustiores subæquales concolores violaceo-albicanes, labii summi 3 arrecto-conniventes, 2 laterales latiores firmiores planiores saturatè hyacinthine maculâ amplâ albâ oblongâ de suprâ medium disco usque ad basin pictæ margine interiori invicem contingentes ut mediam penè excludant, labii infimi 3 stellatae, laterales 2 apice revolutæ, media deflexa. Stam. $\frac{2}{3}$ parte breviora limbo v. magis, declinato-assurgentia, alternè sublongiora, albicantia, unum distans et summo limbi labio accumbens: anth. breves, oblongæ, incumbentes, albicantes. Stylus formâ colore directione et ferè crassitudine filamentorum: stigma punctum simplex: germ. subglobosum, tubi concolor, crassiusculum, 3-loc.; loculamenta collateral-disperma, ovulis erectis oblongis fundo infixis, ferè ac in PANCRATIO amboinensi aliisque nonnullis ejusdem generis.

A recent and unrecorded acquisition, of great curiosity, and due with so many others to the zeal and intelligence of Mr. Griffin in his botanical pursuits; which have enabled him to form the most extensive assemblage of this fine tribe of plants of any perhaps in Europe. Having obtained information of the existence of the present species, he did not remit his researches until it was in his possession. It was discovered in the Brazils, by Mr. E. Woodford, while residing in that country. In relation to the genus, as at present known, it exhibits several anomalous features;

viz. the hyacinthine blue of the corolla, the two converging segments of the upper lip which are dissimilar to the rest, an upper stamen removed from the others and accumbent to the superior lip of the limb, the petioled bladed prominently nerved foliage, and lastly a germen with dispermous cells and ovula inserted at the bottom of these. In the latter character it agrees with *PANCRATIUM amboinense* and some others of that genus. But its general accordance is manifestly more complete with *AMARYLLIS* than with any other generic groupe, and its anomalies, in our judgment, are not of a nature to render the separation of it into a new one expedient.

Bulb tunicate, ovate. *Leaves* 2-3, about eight inches long and 2-3 broad, appearing long after the bloom has gone by, bifarious, recumbent, firm, substantial, petioled; blade ovate oblong, abruptly pointed, flat, latticed by veins crossing the vertical nerves, deep green, midrib prominent beneath. *Scape* rather higher than the leaves, cylindric, unstreaked, reddening near the base. *Spathe* of two valves, sphacelate, much shorter than the flowers. *Umbel* nearly sessile, subcapitate, 9-10-flowered, with intervening bractes: *flowers* of a purplish or violet-blue and white, nutant, about two inches and half long, without scent. *Corolla* funnel-form, ringent, unequal; *tube* purplish white, several times shorter than the limb, bent forwards, cylindrical, depressed at the upper side which has a prominent nerve; *limb* half radiately expanded down to the short subventricose naked *fauz*, *segments* lanceolate, more or less undulated, the three outer ones, and the lower middle inner one, all of a purplish-white colour, and narrower than the remaining two; the 3 forming the outer lip upright and connivent, the two lateral of these broader, firmer, and flatter, of a deep hyacinthine-blue colour, with a large oblong white spot from above the middle down to the base, mutually converging so as nearly to hide the centre segment; the three forming the lower lip stellate, as well as the two lateral ones revolute. *Stamens* a third shorter than the limb or more; declined, uppermost one removed from the others, and bent back against the upper lip; *anthers* cream-coloured. *Stigma* simple.

Requires to be kept in the hothouse, where it flowered in the autumn, at Mr. Griffin's, South Lambeth.





C. C. Smith del. *Pub. by J. R. Squire, 170 Broadway Jan 1 1867.*



Smith's arisaema

AMARYLLIS calyptrata.

Green-flowered Amaryllis.

HEXANDRIA MONOGYNIA.

Nat. ord. NARCISSI. Jussieu gen. 54. Div. II. Germen inferum.

AMARYLLIDÆE. Brown prod. 296. Sect. I. Radix bulbosa. Flores spathacei, rarò solitarii.

AMARYLLIS. Suprà vol. 1. fol. 23.

Div. bi-multifloræ, tubo coronato. Folia bifaria.

A. calyptrata, biflora, semiringens; foliis plurimis; tubo coronato membranâ brevi decolori integerrimâ.

Folia coriaceo-firma erecto-patentia, lorato-lanceolata, $2\frac{1}{2}$ pedes longa, sesqui v. 2 uncias lata, non glauca, clathrato-venosa, costâ mediâ canaliculata et carinata, deorsum attenuata rigida involuta, sursum planiuscula longè acuminata, acuta. Scapus (modò plures successivi) parum brevior foliis, robustus, rectus, cylindraceo-attenuatus, levissimè compressus, glaucus, estriatus, infernè purpurascens. Spatha bivalvis, membranosa, striatula. Flores maximi, diutini, subflavido-virentes, nutantes, pedunculati, 5-unciales, ab imo pedunculo ad summa stigmata usque 9-unciales, bis altiores spathâ; pedunculi calamum crassi, subæquales germini v. parum longiores, virentes, rotundatè trigoni. Germ. obesiùs pedunculo, unciale, obsoletè pulvinato-trilobum, lævis, exsulcum, non glaucum. Cor^æ rictus transversim latior; tubus germini subisoperimeter, rectus, cylindræus, obsoletè triangularis, intensiùs virens, bis brevior limbo: limbus 6-partitus, infra imbricatus, chloroleucus, clathrato-venosus, laciniis subæqualibus, lanceolatis, acutis, versus marginem pallidioribus, undulatis, exterioribus 3 dorso gibbosisioribus, carinâ saturatè virentibus, inflexis, mucrone compressâ, interioribus disco planioribus involutis reflexis, summâ mediâ arcuatâ, antrorsum depressâ, lateribus reflexâ, laterali-bus ejus binis divaricato-recurvis, sublatioribus, sursum obliquatis; inferioribus 3 inter se æqualibus prostantioribus, lateralibus 2 mediam summam referentibus, imâ mediâ laterales 2 summas. Corona faucialis ore triangulosè contracta. Stam. exserta, fasciculata, declinato-assurgentia; fil. robusta, teretigona, subulato-attenuata, rubore lurido obsoletè varia: anth. violaceæ, pol-line flavo. Stylus staminum concolor, longior atque crassior: stig. revoluta,

The present is the fourth unrecorded species of the genus made known in this work, and the introduction of which is due to Mr. Griffin. The *hyacinthina* of the fasciculus for the preceding month, was the first evidence of an AMARYLLIS with a blue flower; the present the first of one with a green flower. Until their appearance amongst us, an AMARYLLIS of either of these colours was still a chimæra. *Calyptrata* is moreover remarkable in having the membrane which crowns the orifice of the tube and sur-

rounds the base of the stamens, entire, not as in all the species where it has been yet met with, split or unravelled into a sort of fringe, or divided into scale-like lobes. A feature which narrows the compass of that part of the technical character which separates the genus from *Narcissus*, to the insertion of the filaments to within the tube below the base of the crown in that genus, and to their insertion at the summit of the tube on a level with the crown in this:

A native of the Brazils, where it was found by Mr. E. Woodford, and sent by him to this country.

Bulb tunicated. *Leaves* many, firm, substantial, bifarious, upright, patent, lorate, lanceolate, about two feet and a half in length, from an inch to an inch and half in breadth, not glaucous, latticed-veined, channelled at the midrib and keeled, downwards narrowed involute and stiffened, upwards flattened, far acuminate. *Scape* (sometimes two or more in succession) rather shorter than the foliage, thick, cylindrical, tapering, straight, very slightly compressed, glaucous, not streaked, reddening below. *Spathe* bivalved, membranous, finely striate, twice shorter than the flowers. *Flowers* two, of the largest dimensions in the genus, of considerable endurance, of a yellowish green colour, without scent, peduncled, about five inches in length, from the base of the peduncle to the summit of the stigmas nine inches: *peduncles* as thick as a large pen, about equal to the germen or rather longer, trigonal with rounded corners, green. *Germen* of greater circumference than the peduncle, about an inch long, obscurely 3-lobed, lobes pulvinate, not glaucous, unfurrowed. Orifice of the *corolla* widest crossways; *tube* nearly of the same diameter as the germen, straight, cylindric, obscurely trigonal, deep green, twice shorter than the limb; *limb* six-parted, semiringent, imbricated below, pale green, latticed-veined; segments nearly equal, lanceolate, acute, undulate, paler at the edge, *three exterior ones* convex at the back, where they are of a deeper green and keeled, toward the top connivent, with a compressed point, *three interior* flatter in the disk involute reflectent: *upper middlemost* vaulted, inclining forwards; *the two side ones* divaricately recurved, slanting upwards, a little broader than the rest; *three lower ones* forming the nether lip, projecting more than those of the upper lip; *two lower lateral ones* resembling the upper middle segment; *lower middle one* resembling the two upper lateral

ones. *Crown* shallow, membranous, colourless, entire, surrounding the filaments at their base, but not connecting them like a web, as in *PANCRATIUM*. *Stamens* fasciculate, declined, assurgent, projecting beyond the corolla; *filaments* thick, trigonal with rounded corners, subulately tapered, of a dingy pale mottled red: *anthers* violet-coloured, with yellow pollen. *Style* of the same colour as the filaments, but thicker, and of greater length: *stigmas* revolute.

The drawing was taken from a plant which flowered last September in Mr. Griffin's hothouse at South Lambeth.







Lyd Edwards del

Robt. Lee

J. Ridgway 170 Hoadly Jan 24 1817.

Smith sc

LOBELIA fulgens.

Refulgent Lobelia.

PENTANDRIA MONOGYNIA.

(Nonnullis Monadelphia Pentandria.)

Nat. ord. CAMPANULACEÆ. Jussieu gen. 163. Div. II. Antheræ connatæ.

CAMPANULACEÆ. Brown prod. 559. Sect. II. Corolla irregularis (nunc 5-petala). Antheræ sæpè connatæ.

LOBELIA. Suprà vol. 1. fol. 60.

L. fulgens, erecta, simplex, subpubescens; foliis elongato-lanceolatis attenuatis subintegerrimis, racemo multifloro, genitalibus longitudine corollæ. Pursh amer. sept. 2. 448.

Lobelia fulgens. Andrews's reposit. 659. Aiton's Epitome, 370; in Add. Donn cant. ed. 8. 57. Willd. hort. berol. 85. cum tab. Enum. 217.

Radix perennis, fibrosa, stolonifera. Caulis herbaceus, erectus, bipedalis et altior, simplex v. ramosus, teretiusculus, sulcato-subangulatus, præsertim basin versûs, ex toto pube tenui obductus. Folia alterna, sessilia, ut caulis pubescentia, lanceolata, apice attenuata, venosa, remotè denticulata, margine revoluta, inferiora 3-4-pollicaria, superiora sensim minora. Flores racemosi, terminales, subsecundi. Bracteæ lanceolatæ, pedunculo longiores, inferiores majores, subintegerrimæ, pubescentes. Pedunculi alterni, pubescentes, calyce breviores. Calyx 1-phyllus, 5-partitus, laciniis lanceolatis, acutis, integerrimis, erectis, 1-nerviis, apice patulis. Cor. coccinea. Tubus ovato-oblongus, calyce longior, initio integer postea longitudinalitèr utroque latere fissus. Limbus 5-partitus, laciniis 2 superioribus lineari-lanceolatis, angustis, basi erectis, apice reflexo-patentibus, 3 inferioribus oblongo-lanceolatis, reflexis, planis. Fil. lineari-lanceolata, margine cohærentia, apice et basi parùm sejuncta. Anth. erectæ, lineari-oblongæ, cohærentes, apice pilosæ. Germ. 10-sulcatum. Stylus filiformis. Stig. bilamellatum. Caps. apice dehiscens. Sem. minuta. Willdenow.

Under the head *LOBELIA splendens*, in the first volume of this work, we have noticed the introduction of that species from Mexico, along with the present. Both were obtained from seeds found in specimens which the illustrious travellers, Messrs. Humboldt and Bonpland, had preserved in the Herbarium they brought home with them. Both have been rapidly multiplied, and already found their way into every garden and window. The present blossoms from August until the frost destroys it; *splendens* is somewhat forwarder, and rather more hardy. If shel-

tered in the greenhouse the seed is sometimes ripened; but the more usual way of propagating it, is by dividing the suckers from the root-stock.

A perennial fibrous-rooted herbaceous plant, clothed, except at the corolla, by a close fine nap, which distinguishes it at first sight from *splendens*. *Stem*. upright usually two feet high, somewhat angular and furrowed, especially near the base. *Leaves* sessile, narrow- or long- lanceolate, veined, distantly denticulate, reflectent at the edge, lower ones 3 or 4 inches long, upper gradually smaller. *Raceme* many-flowered, upright, terminal, pointing in some degree to one side. *Peduncles* shorter than the calyx. Segments of the *calyx* entire, acute, patent near the top. *Corolla* scarlet, but of a lighter and more glowing hue than in *splendens*; larger than in *cardinalis*, now yielding its place in our collections to the new-comers. *Filaments* linear-lanceolate, cohering, except at the summit and base, equal to the corolla, not longer as in *cardinalis*: *anthers* linear-oblong, cohering, pubescent at the top. *Seed* very small.

Mr. Pursh has included it in his account of the plants of North America, as growing on the Mississippi, but he had only seen it in our gardens, and gives no authority for its belonging to the station he mentions.

The drawing was made at Messrs. Colvilles' nursery, Chelsea.



Symb. E. Edwards. del.

Scab. by J. Ridgway 1790. Piccadilly. Jan. 1. 1817.

Smith. Sc.

MITELLA diphylla.

Two-leaved Mitella.

DECANDRIA DIGYNIA.

Nat. ord. SAXIFRAGÆ. Jussieu gen. 308.

Div. I. Fructus superius capsularis, apice birostris.

MITELLA. Cal. 5-fidus, persistens. Petala 5, laciniata aut pinnatifida, summo calyci inserta, ejusdem laciniis alterna. Stam. ibidem inserta. Caps. 1-loc., 2-valvis, valvis æqualibus. Folia simplicia, pleraque radicalia; flores in scapo nudo aut oppositè diphyllò laxè spicati terminales. Jussieu.

M. diphylla, foliis sublobato-acuteangulis dentatis, caule erecto superne oppositè diphyllò. Pursh amer. sept. 1. 313.

Mitella diphylla. Linn. sp. pl. 1. 580. Mill. dict. ed. 8. n. 1. Hort. Kew. 2. 83. ed. 2. 3. 73. Gart. sem. 1. 208. t. 44. f. 6. Mich. bor-amer. 1. 270. Rob. ic. 80. Lamarck illustr. 1. tab. 373. fig. 1. Willd. sp. pl. 2. 659. Schkuhr handb. 1. 375. t. 120.

Cortusa americana altera, floribus minutim fimbriatis. Mentz. pug. t. 10.

C. americana, spicato flore, petalis fimbriatis. Herm. par. 130.

Sanicula s. *Cortusa indica*, flore spicato fimbriato. Dodart mem. 299.

Herba perennis, pubescens pilis brevibus interspersis triplò longioribus; caulis semipedalis ad dodrantalem, parùm supra medium oppositobifolius. Folia cordato-subtriloba lobis acuteangulis, inciso-dentata nisi in sinu bascos ubi integerrima, pilosa, nervosa, subrugosa, radicalia erecta, 2-5, longè petiolata, stipulis binis ovato-lanceolatis membranaceis ciliatis cuspidatis suprà glabris; caulina superna, subsessilia, uncialia v. magis. Racemus continuus, distans foliis, remotiùs multiflorus, sparsus, erectus: flores (14-16) parvuli, albi, pedicellis calyce brevioribus teretibus villosis suffultis bractea subæquali ovato-rotundâ denticulatâ glabrâ apice erosâ vel acuminatâ. Cal. pubescens, segmentis ovatis cum acuminulo, erectissimis, albicantibus. Cor. alba; pet. unguiculata ad divisuras calycinas posita, ungues his æquales, laminae subrotundæ v. ellipticæ, pinnato-multifidæ lacinulis capillaribus. Stam. inclusa calyci, ejusque tubo incrassato ad punctum ubi inseruntur petala circumposita. Fil. brevia, subulata, apice inflexa: anth. subrotundæ, luteæ. Germ. ovatum, conicum, virens, minutè pubescens: stig. 2 obtusa, æquantia stamina.

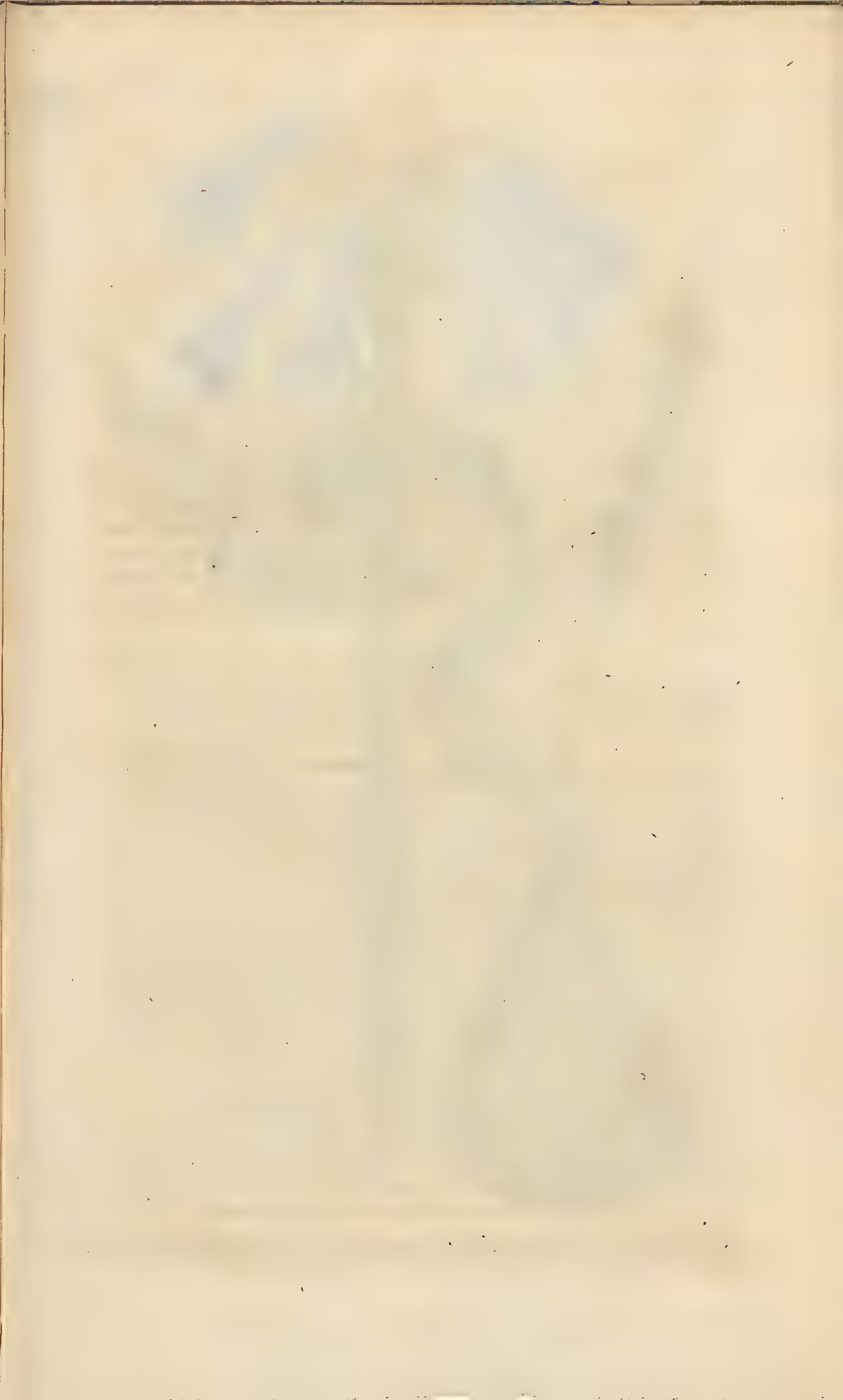
Native of North America, where it grows in shady places, near springs, among rocks. Cultivated in 1731 by Miller, in Chelsea Garden. Perfectly hardy; but loves a soft loamy soil and shady situation. Is propagated by parting the root in autumn. Flowers about May. The genus belongs to the tribe of Saxifrages.

A perennial rooted herb, coated with shortish hair of unequal lengths. Radical leaves from two to five, with

longish petioles; blade patent, cordate, faintly 5-3-lobed, lobes shallow, acutely angular, deeply dentate, five-nerved, subrugose, an inch long or more, with two ovate lanceolate cuspidate smooth ciliate membranous *stipules*; *cauline* almost sessile, opposite, placed nearly half way up the stem. *Raceme* continuous, distant from the two cauline leaves, upright, loosely scattered, many-flowered, patent. *Flowers* small, whitish, on round villous *pedicles* shorter than the calyx, with a nearly equal ovately round smooth denticulate generally acuminate *bracte* at the base. *Calyx* pubescent, with straight whitish ovate pointed segments. *Corolla* rotate, white, *petals* five, unguiculate, inserted opposite to the intervals between the calycine segments, claw or tail equalling these, blade roundish or elliptic, pinnately multifidous, segments of almost capillary fineness. *Stamens* shorter than the calyx, placed within its thickened tube at the point where the petals are inserted. *Filaments* short, subulate, inflectent at the point: *anthers* roundish, yellow. *Germen* ovate, conic, green, minutely pubescent: *stigmas* 2 obtuse points, continuous with the valves of the germen, equal to the stamens.

The drawing was made from a plant which flowered in Mr. N. S. Hodson's collection at South Lambeth.

a A magnified dissected flower, showing the pistil, the stamens, and the insertion of the petals into the calyx.





Syd Edwards del. Pub. by J. Ridgway 171 Piccadilly June 4th 1811 Smith. Sup

CYRTANTHUS spiralis.

Spiral-leaved Cyrtanthus.

HEXANDRIA MONOGYNIA.

Nat. ord. NARCISSI. Jussieu gen. 54. Div. III. Germen inferum.

AMARYLLIDÆ. Brown prod. 296. Sect. I. Radix bulbosa. Flores spathacei, raro solitarii.

CYRTANTHUS. Suprà fol. 162; ubi omittendum est verbum "curva," et pro "lacinia limbi tubo cum fauce triplo breviores" legendum "lacinia limbi fauce breviores," pro "Fil. fauci tubi inserta" ponendum "Fil. fauci supra tubum inserta," et pro "spatha multiflora," "spatha uni-multiflora."

Dignoscatur AMARYLLIDE ex limbo brevior quàm faux tubulosa, non longior; filamentis insertis fauci supra tubum, non summo tubo infra faucem. Semina in C. angustifolio paleaceo-compressa. Fortè etiam in reliquis congeneribus.

C. spiralis, pluriflora, foliis subtrinis, ligulatis, spiralibus, obtusis, glaucis. Cyrtanthus spiralis. Burchell MSS.

Cyrtanthus angustifolius. Jacq. hort. schænb. 1. 40. t. 761 (non aliorum); tantummodò tamèn quod ad figuram bulbi aphylli floridi; folia enim in textû descripta et icone seorsim delineata suspicamur speciei pertinere alienæ.

Cyrtanthus ventricosus. Willd. sp. pl. 2. 49. Hort. Kew. ed. 2. 2. 222.

Bulbus oblongo-ovatus magnitudine ferè ovi gallinacei, indusio glabrato fusco, nervis rectis parallelis remotiusculis striato. Folia tardiora inflorescentiâ, 2-3, erecta, spiralitèr contorta, semipedalia, dimidium uncia lata, infernè versùs attenuata, subsplendentia, glauca. Scapus pedalis, pennâ anserinâ crassior, columnari-strictus, teres, viridis rubedine aliquâ suffusus, glauco rore opacatus. Spatha 2-valvis, lanceolata, subæquans pedunculos. Umbella subseptemflora, bracteis interstincta, floribus cernuis miniatis biuncialibus. Cor. clavato-cylindræa, ubi latior diametro ferè pennæ olorinæ; tubus gracilis, recurvus, in faucem inflatius et abruptius dilatatus quàm in congeneribus glauco aut angustifolio; limbus penè quater brevior portione tubulosâ, patens, laciniis elliptico-ovatis, exterioribus mucronulatis. Stam. ad medium limbi usque vel ultra prostantia: anth. flavæ. Stylus æquans stamina.

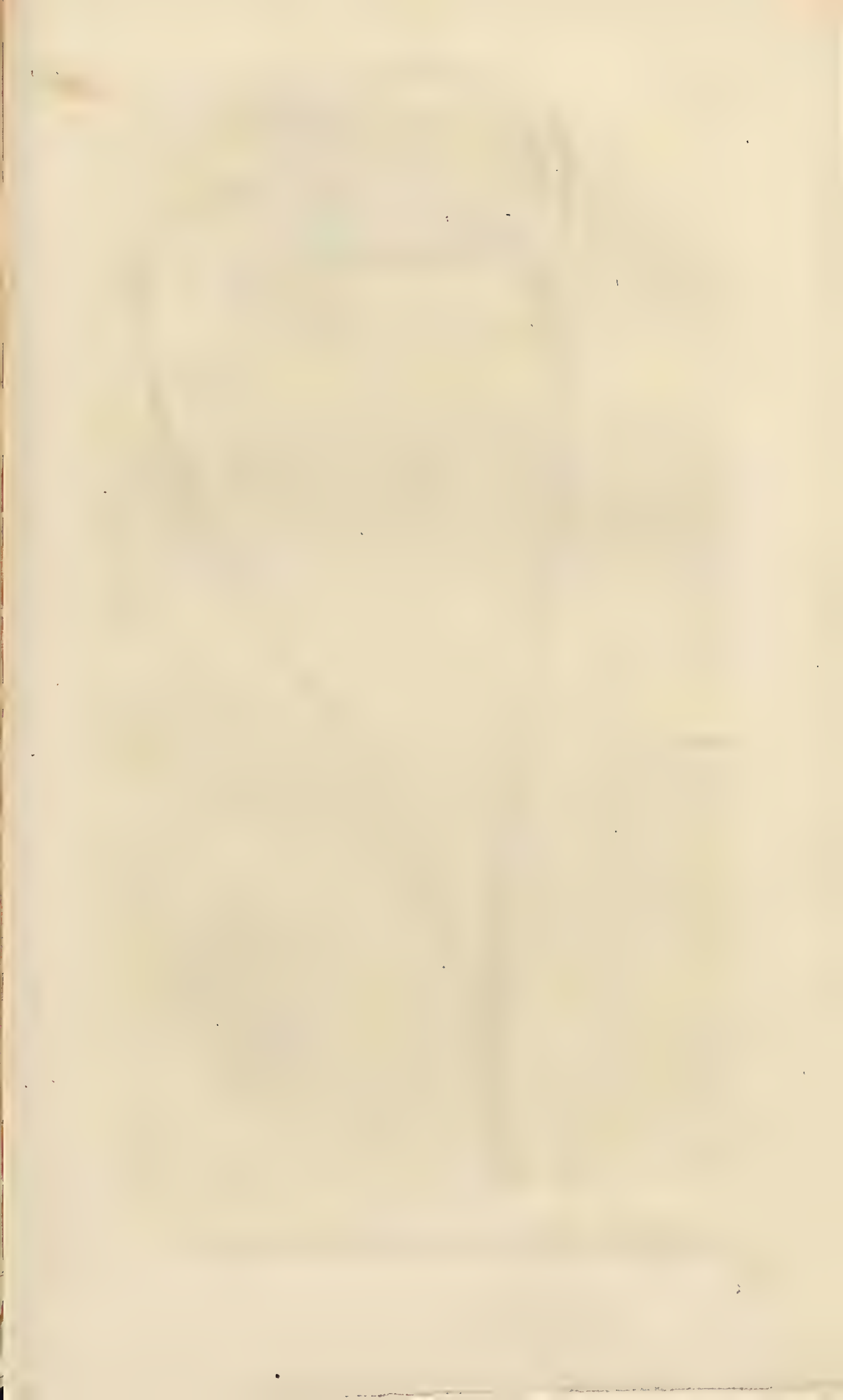
We have no doubt that our plant is of the same species with that cited from the Hortus Schoenbrunnensis of Jacquin, in as far as relates to the description and figure of the plant with a bulb and inflorescence, without leaves; but we suspect that the foliage described in the text, and represented in another part of the plate, belongs

to another species. The mistake has probably arisen from some accidental transposition of the specimen in the period of time that intervened between the taking of the description and drawing of the flower, and the subsequent appearance of the foliage. The true *angustifolius* (figured in Curtis's Magazine: 271) is very distinct from that of Jacquin, it is altogether a smaller plant, with clear green, still narrower, not spirally wreathed leaves, and a corolla with acuminate segments.

The present species is an extremely rare plant; and although recorded in the last edition of the Hortus Kewensis, we have never met with it in any collection except in that of Mr. Burchell, by whom the plant from which our figure was drawn was found at Uitenhage, near Algoa Bay, in the territory belonging to the colony of the Cape of Good Hope. This gentleman brought home many of the bulbs, several of which flowered in his garden at Fulham, in September last.

Bulb oblong-ovate, with smooth light brown integuments, streaked, but at widish intervals. *Leaves* generally appearing after the inflorescence has gone by, from two to three, ligulate, upright, spirally wreathed, about half a foot high, half an inch broad, narrowed downwards from below the middle, glaucous, yet somewhat shining. *Scape* thicker than a large quill, columnar, about a foot high, glaucous over green, tinged with purple. *Spathe* as long as the peduncles. *Umbel* of about seven flowers, divided by bractes, *flowers* cernuous vermilion, inclining to salmon colour, about two inches long, with the diameter of the stem of a swan-quill, twice as long as the peduncles. *Corolla* of a clavately cylindric form, with a slender short *tube* enlarging into a wider *faux*, and rather more abruptly than in that of either of the allied species, *glaucus* or *angustifolius*; *limb* four times shorter than the tubular portion of the flower, patent; segments elliptical, ovate, outer three with a small point. *Stamens* standing out as far as the middle of the limb, or farther: *anthers* yellow.

Requires keeping in a greenhouse during the colder part of the year.





Lyd. Edwards. del.

Pub. by J. Ridgway 170 Piccadilly, Jan. 1. 1847.

Smith. Po.

CYRTANTHUS uniflorus.

One-flowered Cyrtanthus.

HEXANDRIA MONOGYNIA.

Nat. ord. NARCISSI. Jussieu gen. 54. Div. III. Germen inferum.

AMARYLLIDÆE. Brown prod. 296. Sect. I. Radix bulbosa. Flores spathacei, raro solitarii.

CYRTANTHUS. Suprà fol. 167.

C. uniflorus; folio solitario, lineari, glauco: limbo subæquante fauceni.

Amaryllis clavata. L'Heritier sert. angl. 11. Willd. sp. pl. 2. 52.

Folium erectiusculum, æquans vel superans scapum cum flore, vix lineam latum. Scapus teres, erectus, culmum triticeum crassus, subspithamæus, glaucus infernè rubescens. Spatha foliolis duobus lineari-attenuatis, duplo longioribus ultràve pedicello fusco-virente. Germen oblongum, lineare, obtusè trigonum. Cor. horizontali-nutans albida, extus striis sex equidistantibus lateritiis v. puniceis per omnem longitudinem hexanguloso-notata, intùs lineis totidem sanguineis brevibus è fundo tubi alternè cum striis extimis ductis radiata, biuncialis, rectiuscula, ubi latior diametro digiti v. circitèr; tubus fusco-rubens, subæqualis germini, angustus, ampliatus in faucem ventricosius cylindricam limbo æqualem: limbus patulus, laciniis ovatis acutulis nervo medio intùs prominulo, exterioribus 3 mucronatis. Filamenta brevia faucem vix exsuperantia, incurvo-conniventia: antheræ incumbentes, luteæ. Stylus ruber parùm excedens antheras; stig. 3, rubra, patentia.

A species wavering between CYRTANTHUS and AMARYLLIS; but agreeing with the former, in having filaments which are inserted into the faux above the tube, and a regularly patent limb, as short as the faux or shorter; and we have enrolled it there. Indeed the two genera are in all else so close, that we can detect no other marks to keep them clear. Our plant was recorded by L'Heritier as an AMARYLLIS, and called *clavata*, before the present genus had been instituted. Several bulbs of it have been now first brought into this country by Mr. Burchell, three or four of which produced their blossom; of these the one figured here had by far the largest and brightest coloured flower, that of the others was of much smaller calibre, with less widely expanded segments, and with the six external stripes of a dingy tile-red, not of a bright carmine, as in that of the present. It grows spontaneously at the Cape of Good Hope, near Cam-

tour's river. Approaches AMARYLLIS by the *vittata* of that genus.

Leaf upright, linear, glaucous, scarcely more than a line broad. *Scape* round, as thick as a wheaten straw, about seven inches in height, glaucous, reddish below. *Spathe* of two narrow tapered leaflets, twice longer than the peduncle. *Germen* oblong, linear, obtusely trigonal. *Flower* nutant, whitish and hexangularly marked with six vertical narrow equidistant crimson stripes, about two inches long, and nearly of twice the diameter of a swan-quill: *tube* of a dusky red, about equal to the germen, slender; *faux* equal to the limb or longer; *segments* patent, ovate, somewhat acute, with a vertical middle nerve inwardly prominent. *Filaments* scarcely reaching beyond the faux, short, incurvately connivent: *anthers* yellow incumbent. *Style* red; *stigmas* red patent.

The drawing was taken this summer at Mr. Burchell's, Fulham.



J. Edw. del.

Pub. by J. Ridgway, 170 Piccadilly, Jan. 1. 1817

Smith sc.

GLADIOLUS edulis.

Esculent-rooted Cornflag.

TRIANDRIA MONOGYNIA.

Nat. ord. ENSATÆ. Linn. ord. nat. VI. Nobis in ann. bot.
1. 219.

IRIDES. Jussieu gen. 57. IRIDÆ. Brown prod. 302.

GLADIOLUS. *Inflor.* alterna, disticho-spicata, pauci-multiflora, distincta *spathis* bivalvibus lanceolatis, valvâ anticâ involvente posticam angustiolem. *Cor.* supera, tubulosa, 6-fida, infundibuliformis, irregularis, *tubo* erecto gracili in faucem brevem v. cylindraceo-elongatam ampliato, *limbo* 6-partito bilabiato, subæquali et divaricato, v. inæqualissimo laciniâ summâ porrecto-depressâ. *Fil.* ori tubi inserta, collateralis-adscendentia, inclusa. *Anth.* lineari-oblongæ, introrsum suspensæ, versatiles, verticales. *Stylus* cum directione staminum, tristriato-filiformis *Stig.* lamellæ 3 elongatæ, obversè attenuatæ, complicato-canaliculatæ, replicatæ. *Caps.* membranacea, ovato-oblonga, obtusè trigona, 3-loc., 3-valv., valvis medio septiferis. *Sem.* numerosa, gemino ordine imbricatim cumulatâ, internæ margini septi utrinque annexa, cincta alâ membranaceâ latâ circum nucleum parvum cartilagineum; alâ ob testam nucleo grandiori et paucâ pulpâ obducto expletam rarissimè oblitteratâ.

Bulbo-tuber globoso-ovatum, integumentis membranoso-fibrosis, externis crassitudine maximè variis. Folia 2-plura, collateralis-disticha, infrâ vaginantia et vaginâ radicali membranosa complexa; *lanceina* plano-ensata, rariùs decussato-quadrangularis, modò ad paginam utramque bisulca cum margine utrinque elevatâ, v. interdum cartilagine crassâ circumscripta. *Caulis* culmaceus, sæpiùs simplex, teres v. nunc triquetus. In proximis BABIANA et ANTHOLYZA, præter habitum diversum, semina non alata.

G. edulis, foliis longissimis linearibus glaucis, nervo utrinque prominente: limbi laciniis caudatis.

Gladiolus edulis. Burchell MSS.

Bulbo-tuber ovato-conicum, nucleo castaneo-carnoso, indusio reticulato, fusco. Folia subquaterna, cauli infernè imposita atque duplo longiora, proxima, linearis-acuminata, vix sesquilineam lata, glauca, plana, nervo medio quadrato utrinque extante nec tamen cum elevatione adæquante planum transversum folii. Spica multi-(sub-8-)flora, remotiuscula, flexuosa, erecta. *Spathæ* duplo breviores floribus, sphacelato-membranosæ, tenues, æquivales; valvæ arctius convolutæ interiore bifidâ. *Cor.* dilutè purpurascens sesquiuncialis, semiringens, labiis inæqualibus: *tubus* gracilis parùm dilatatus æquans *spatham*; laciniis cum cuspidè tenui longâ abruptè acuminatis, summâ latiore arcuato-adscendente remotâ; cæteris rhombeo-lanceolatis invicem conniventibus, lateralibus 2 summis oppositis, latioribus quàm tres infimæ sanguineo-pictæ atque invicem æquales.

An unrecorded species, found by Mr. Burchell in South Africa, near Litákoon; almost the farthest inland

point in that direction visited by any european who has returned to the Cape of Good Hope. It differs from the many others we have examined, by a corolla with rhomboidally lanceolate segments terminating in long abruptly narrowed caudately tapered points. The roots are roasted and eaten like chestnuts, which they resemble in taste and quality.

Bulb-tuber ovate, tapered, with a kernel nearly of the substance of a chestnut, and netted integuments. *Leaves* very long, four or thereabouts, placed towards the bottom of the stem, twice as high as that, linear, acuminate, glaucous, scarcely a line and half broad, having a square midrib prominent from both surfaces, but not equalling in depth the breadth of the blade. *Spike* 8-flowered or thereabouts, loose, upright, flexuose. *Spathes* sphacelate, rolled close, twice shorter than the flowers; valves equal, inner one bifid. *Corolla* of a very diluted purple, nearly bleached, about an inch and a half long, semiringent, with unequal lips: *tube* slender, equal to the spathe; *segments* suddenly narrowed into a long slender point, upper one broadest, arched, standing aloof; the rest rhomboidally lanceolate connivent, two upper lateral ones opposite and broader than the three lowermost, which are marked with crimson.

The drawing was taken in September, from a plant at Mr. Burchell's, Fulham.



Agel. Edwards. del. Pub. by J. Ridgway 170 Piccadilly. Lon. 1. 1817.

Smith. Sc.

CARTHAMUS tinctorius.

Safflower, or Bastard-Saffron.

SYNGENESIA POLYGAMIA ÆQUALIS.

Nat. ord. CINAROCEPHALÆ. Jussieu gen. 171.

Div. I. Cinerocephalæ veræ. Squamæ calycis spinosæ.

CARTHAMUS. Flores hermaphroditi. Cal. multiplici serie polyphyllus, imbricatus, squamis interioribus simplicibus acuminatis aut spinosis, exterioribus basi arctis, apice foliaceo divaricatis, et margine dentato- aut sinuato-spinosis. Recept. tectum pilis. *Herbæ spinosæ aut mites, quædam calyce subinermi minùs congeneres.* Semen C. tinctorii nudum pappo mox deciduo. Flosculi radiales ex Hallero neutri aut abortientes in C. lanato et C. cretico indè ad CALCITRAPAM depellendis et CALCITRAPÆ benedictæ affinioribus. Juss. gen. 172.

C. tinctorius, caule glaberrimo, foliis ovatis integris spinoso-dentatis, seminibus nudis. Willd. sp. pl. 3. 1706.

Carthamus tinctorius. Lin. sp. pl. 2. 1162. Hasselq. it. 483. Mill. dict. ed. 8. n. 1. Beckmann in Nov. comm. goett. IV. 94. Regn. bot. Gartn. sem. 2. 375. t. 161. fig. 2. Allioni pedem. n. 562. Zorn ic. 140. Hort. Kew. 3. 150. ed. 2. 4. 491. Lam. et Decand. fl. franç. 472. Lam. illustr. t. 661. f. 3.

Cnicus sativus S. Carthamus officinarum. Rumph. amboin. 5. 215. t. 79.

Cnicus vulgaris. Clus. hist. 2. 152.

Herba annua nunc 3-pedalis. Caulis erectus, teres, strictus, solidus, glaber, è viridi albidus; supernè fastigiato-ramosus. Folia sparsa, caulina, patentia, semiamplexicaulia, ovalia, acuminata, venosa, nuda, spinuloso-dentata; radicalia oblonga, infernè angustata. Flores capitati, ramulorum in pedunculos fistuloso-clavatos abeuntium terminales, crocum redolentes. Squamæ calycinæ numerosæ capitato-compactæ, interiores arctè conniventes lineari-lanceolata nervoso-striatæ villo minuto tectæ simplices, mediæ squarrosæ semifoliacæ, exteriores patentissimæ omninè folia. Flosculi ultrà unciam longi, plurimùm superantes calycem, omnes androgyni, glabri, graciles; tubus striatus supernè coccineus, 3-plo longior limbo; limbus 5-partitus, connivens, flavus aurantiaco notatus, laciniis ovali-lanceolatis margine involutis, erectis. Anth. inclusa, flava, obtusata. Stig. flavum, exsertum, simplex, lineare, secundùm marginem canaliculato-dehiscens, quasi confectum ex 2 laminulis ad oppositos discos conferruminatis et periphæriam versùs solutis. Germ. glaberrimum, calvum, compresso-anceps. Sem. turbinatum, nitidum, niveum; testâ nucumentacæ; umbilico suprâ basin posito.

A native of Egypt, recorded as growing in the gardens of this country as far back as 1551. The flowers constitute a dyer's drug, which forms a considerable article of

commerce. The plant is said to have been once cultivated to a considerable extent in Gloucestershire; but has long since ceased to be so in any part of England. In the hands of the dyer it is made to impart a fine rose or ponceau colour to silk. In the Levant and Spain, it is much used as a culinary ingredient, so it was formerly here. A red pigment for painters is made from the stamens. The cosmetic rouge, called Vegetable rouge, Spanish vermilion, Lake of Carthamus, receives its hue from safflower. The seed has a place in the *Materia medica*, but we believe is no longer prescribed in practice. This is sometimes called Parrot's corn, being a grateful and wholesome food for that tribe of birds; altho' noxious, as it is said, to all other animals. Allioni enrols it among the native vegetables of the country about Nice, where it grows on dry hills, and if not aboriginal is domesticated to a great extent.

An annual plant, sometimes three feet high. *Stem* whitish, upright, solid, rigid, smooth, branched upwards, branches scattered and generally fastigiata. *Leaves* scattered, loose, cauline ones halfclasping, patent, oval, acuminate, veined, naked, edge spinously indented; radical ones oblong, narrowed towards the base. *Flowers* capitate or artichoke-shaped, standing upon a thickened fistular terminal peduncle continuous with each branch, smelling something like the true saffron. *Calyx* of numerous scales, *innermost* of these narrow lanceolate, externally, villous connivent, *middlemost* semifoliateous squarrose, *outermost* perfect leaves and entirely patent. *Florets* discoid and fertile, an inch or more long, overtopping the calyx, orange-red, slender, smooth; *tube* three times longer than the *limb*; *segments* connivent, upright, lanceolate-oval, involuted at the edge. *Stigma* protruded, simple, linear, split into a groove round the edge, as if of two equal laminæ conjoined inwards at their disks. *Seed* turbinate, shining, white, with an integument like a shell.

A common hardy annual; but of which we have not found a coloured figure in any english work. The drawing was taken at Messrs. Whitley, Brame's, and Milne's nursery, King's Road, Fulham.

a A flower dissected vertically, showing the germens and florets standing imbedded in the hair of the receptacle. *b* A detached floret.





Lyl. Edwardsi, del.

Painted by J. Hodgson & Son. 1/11. Published Feb 1 1871





CRINUM cruentum.

Mr. Herbert's Crinum.

HEXANDRIA MONOGYNIA.

Nat. ord. NARCISSI. Jussieu gen. 54. Div. II. Germen inferum.

AMARYLLIDÆ. Brown prod. 296. Sect. I. Radix bulbosa. Flores spathacei, umbellati, raro solitarii.

CRINUM. Suprà vol. 1. fol. 52.

C. cruentum, bulbo stolonifero; foliis amplè loratis, acuminatis, margine glabro; spatha herbacea elongato-oblonga apice rotundata: laciniis limbi plus duplo brevioribus tubo.

Bulbus externè livido-purpurascens, stolonifero-repens. Folia atrovi-
rentia, coriaceo-crassa multifaria, infrà convoluto-vaginantia, suprà recum-
bentia longiora quadripedalia, 4 uncias cum dimidio lata, margine lævissimo.
Scapus (nunc bini successivi) compressus v. anceps aciebus rotundatis, viridis.
Spatha foliaceo-virens erecta, valvâ majore semipedali. Umbella inclinata,
sessilis, multi-(7-) flora, bracteaceo-distincta. Flores ad emarcescentiam usque
excrecentes in longitudinem, ut denuò uncias undenas extendi possint, stricti,
subodorati, roseo-purpurei, senescentes maculis albis interrupti. Germ. vi-
rens, subcylindricè oblongum, obsoletè trigonum, glaberrimum, estriatum,
exsulcum vix tubo continuo crassius. Tubus strictus, septemuncialis in longi-
pibus, calamum crassus, pallido-virens, trigono-cylindricus angulis obtusis;
exsulcus, estriatus: limbus recurvo-stellatus, laciniis elongato-lanceolatis
subtriuncialibus latitudine $\frac{1}{3}$ partis uncie, exterioribus dorso medio viridius-
culis, interioribus sublatisioribus. Fil. sanguinea, unâ quartâ parte breviora
limbo v. circitèr, gracilia, divaricata: anth. in lunulam curvandæ, vibratæ,
lineares. Stylus vix robustior filamentis, æqualis flori, intensè puniceus, tri-
quetro-filiformis; stigma punctum atrosanguineum parum dilatatum.

We did not expect so soon the appearance of one of the same genus, that should vie with the magnificent *amabile*, introduced two or three years ago by Sir Abraham Hume. But in beauty of the corolla the present is at least equal to that, if it yields the points of fragrance and copiousness of blossom. It appears to be an unrecorded member of the genus; and has now first flowered in Mr. Herbert's hot-house at Spofford, near Wetherby, in Yorkshire. And our thanks are due to that gentleman for the entire inflorescence and some of the foliage, which were sent to Mr. Edwards by his direction, along with the principal part of the subjoined account of the plant. We do not find it mentioned in Dr. Roxburgh's manuscript enumeration of

the Coromandel plants, but are informed by Mr. Herbert that it was imported from the East Indies. It differs from all by the long herbaceous round-pointed upright leaflike spathe, colour of the flower, and extraordinary length of the tube.

Bulb large, outside lividly purple, stoloniferous. *Leaves* thickish, multifarious, spreading, of a dark green colour, four feet or more in length, 4-5 inches broad, pointed, entire and smooth edged. *Scape* (sometimes two in succession) compressed, green. *Spathe* half a foot in length, upright. *Umbel* inclined, sessile, with about 7 flowers, separated by *bractes*. *Flowers* peach-coloured-purple, slightly scented, increasing in length till they fade; when extended measuring almost a foot, mottled with white as they go off. *Tube* straight, rigid, of the thickness of a pen, pale green, triangular with blunted corners, not furrowed, twice the length of the limb or more; *limb* stellate, recurved, segments narrowly lanceolate, about the third of an inch broad, outer ones greenish at the back. *Filaments* about a fourth shorter than the limb, slender, divaricate, deep purple. *Style* not much thicker than these, equal to the flower, crimson; *stigma* a black-red point.

It requires to be kept in the stove, and to be furnished plentifully with water. The bulb should be placed upon the surface of the soil. To be propagated by suckers produced from the base of the rootstock or axis of the bulb.



Lyl Edwards. del

Pub by J Ridgway & Sons 176 Piccadilly Feb 1. 1817

Lilium regale

AMARYLLIS flexuosa.
Pustulous-leaved Amaryllis.

HEXANDRIA MONOGYNIA.

Nat. ord. NARCISSI. Jussieu gen. 54. Div. II. Germen inferum.

AMARYLLIDEE. Brown prod. 296. Sect. I. Radix bulbosa. Flores spathacei, umbellati, rarè solitarii.

AMARYLLIS. Vide suprâ vol. 1. fol. 23.

Div. Hexapetalo-partitæ: subrotatæ. Folia bifaria.

Â. flexuosa, spatha pauciflora; foliis loratis angustis obtusulis minutè pustuloso-punctatis; limbi laciniis recurvo-divaricatis undulatis, unâ fasciculo declinato staminum subtensâ, remotâ. Nob. de amar. in Journ. of scien. and the arts, v. 2. p. 365. n. 39.

Amaryllis flexuosa. Jacq. hort. schænb. 1. 35. t. 67. Willd. sp. pl. 2. 60. Hort. Kew. ed. 2. 2. 229.

Undulata minor multiflora; humilis major pluriflora; flexuosa maxima pauciflora: cæterum inter se persimiles. Hujus folia modò pedalia, semunciam lata, subtùs pallentia et conspicuùs pustulata. Scapus bipedalis, modò calamum crassus. Umbella laxa, pedunculis strictis, fragilibus, longioribus spathâ subroseâ lanceolatâ sphacelatâ. Cor. rosea, laciniis tantùm ex disco incrassato connexis, cæterum distantibus. Stigmata tria, replicata, rubra, puberula. Germen loculis suboctospermis. Capsula bulbisperma. Vix constanter? Bulbus indusiis membrano-fibrosis, plexû intergerino fibrarum bombycino atque ductili. Nob. in loc. cit.

A native of the Cape of Good Hope. Introduced by Mr. Masson in 1795. It is extremely difficult to define any distinctions between this species, *humilis*, and *undulata*, which do not resolve into difference of size and its consequences. In *flexuosa* the leaves are twice or thrice broader than in *humilis*, and the whealy or pustulous efflorescence which covers them is more conspicuous, but that is all. In *humilis* the same appearance is more prominent than in *undulata*, where the foliage is the narrowest of the three. In each the undulate segments of the corolla converge towards the upper middle one, forming a semicircularly radiated lip, the lowermost middle one sometimes keeping its position under the style, sometimes slanting away from it with the others. The seeds in all are with us small green succulent roundish bulblike masses, but more numerous in *flexuosa* than in the other two. They may be distinct species, and probably are, but we confess ourselves unable

to elicit a single stable discriminating mark except size. They are all hardy greenhouse plants, and flower nearly together in the autumn. *Flexuosa*, in our apprehension, is a point at which the genus connects itself with BRUNSVIGIA.

Bulbs ovate, covered with numerous whitish membranofibrous integuments; fibres silky, ductile. *Leaves* bifarious, lorately elongated, slightly concave and involute, bluntly acuminate, minutely whealed or pustulous, more conspicuously so at the under surface, where they are of a paler hue, from 9 inches to a foot long, and about half an inch broad. *Scape* 1-2 feet high, round, about as thick as the tube of a middle-sized pen. *Umbel* few-flowered, loose; *peduncles* straight and rigid, green, brittle. *Spathe* shorter than these, lanceolate, sphacelate, reddish. The lower segment generally keeps in its place under the style, and does not slant away with the others towards the upper middle one, as in *humilis*, but we are doubtful if this is constantly the case. *Stamens* fasciculate, declined. *Style* declined, bowed and red upwards: *stigmas* diverging, subpubescent: *germen* 3-lobed, trigonal with rounded corners, knobbed: *locuments* 8-seeded, or thereabouts. Those in *undulata* and *humilis* are fewer seeded.

The drawing was made in Mr. Griffin's garden at South Lambeth, where it flowers in the autumn.

A hardy greenhouse plant; multiplying by offsets from the bulb.





Sp. Edwardsi, det. Pub. by J. K. Rogers & Sons 170 Broadway, Feb 1 1887. Smith &

KÆMPFERIA pandurata.

Sumatra Kæmpferia.

MONANDRIA MONOGYNIA.

Nat. ord. CANNÆ. Jussieu gen. 62.

SCITAMINEÆ. Brown prod. 305.

KÆMPFERIA. *Anthera duplex*. *Filam.* extra antheram elongatum, apice bilobatum. *Corollæ* laciniae lineares acutæ. Roscoe in *Trans. linn. soc.* 8. 351.

Herbæ acaules. Rhizoma tuberoso-ovatum, carnosum, bulbiceps, sobolibus biennibus prorepens. Folia radicalia, bifaria. Inflor. radicalis, bracteato-spicata, sæpius centralis. Cal. superior, subcylindricus, ore arcuato inæqualiter diviso. Corollæ tubus insignitè elongatus gracilisque; labellum non resupinatum, magnum bilobatum, præstans colore. Trunculi thalamei subulati. Stigma infundibuliforme. Germ. 3-loc., loculis polyspermis: ovula annexa axi fructus. Vers. ex angl. Roxb.

K. pandurata, foliis petiolatis, ovali-lanceolatis, spica centrali, laciniiis 2 summis limbi interioris obovatis, obtusis: labello panduriformi. *Ex angl. Roxb.*

Kæmpferia pandurata. Roxb. in *Asiat. research.* 11. 328. t. 2. (edit. Lond.) Roscoe in *Trans. linn. soc.* 11. 274.

Kæmpferia ovata. Roscoe in *Trans. linn. soc.* 8. 351.

Curcuma rotunda. Linn. sp. pl. 1. 3. Willd. sp. pl. 1. 14.

Zerumbet claviculatum. Rumph. amb. 5. t. 69. fig.

Manja-Kua. Rheede mal. 11. t. 10; (innuentibus Roxb. et Rosc.)

Rhizoma flavo-carnosum aromaticum radículas fibrilliferas crassas strictas fasciculato-demittens. Folia bifaria, sesqui-bipedalia, erecta; petioli involuto-canaliculati, basi complexo-vaginantes rubicundi, vaginis radicalibus cincti, intus trans medium membranâ ochreatei; laminæ laxè nervosæ, abruptius acuminatæ, aristatæ, 3-4 uncias latæ, subtus lanugine rarâ deciduâ conspersæ, suprâ efflorescentiâ densâ minutâ albidâ per lentem vitream manifestâ tectæ. Spica imbricato-bracteata, pluriflora; flores singulatim expandentes. Cal. valdè brevior tubo. Cor. 2-3-uncialis, albo-incarnata, venis roseo-punctantibus picta; tubus duplo longior limbo, erectiusculus, albus, intus pilosus; limbus nutans, 6-partitus, campanulato-semiringens, laciniae 3 exteriores angustiores oblongæ 3-nerves isometræ, media summa lanceolata mucronata latior 2 aliis linearibus obtusulis subjectis dorso labelli; 3 interiores latiores, 2 laterales superiores obovatæ subbreiores, una inferior labellum omnibus crassius, $\frac{1}{2}$ parte majus, porrecto-depressum, carnosum, firmum, latè oblongum, involuto-concavum, corrugatum, unciam longum, semunciam latum emarginatum, intus basi barbatum. Fil. brevius antherâ, album crassum rigidum lineare fragile compressè canaliculatum ad antheram dilatatum, ultrâ eam bilobato-fissum revolutum. Stylus capillaceus: stigma parum excedens antheram, infundibuliforme, compressum, pallidum.

Messrs. Roscoe and Roxburgh, who have both given peculiar attention to the fine tropical order of Scitamineous

vegetables to which our plant belongs, are agreed in the opinion of its being of the same species with that figured in the plate we have quoted from the work of Rheede. And if the *CURCUMA rotunda* of Linnæus has been founded upon this figure, and we can trace it to no other source, that species resolves of course into *KÆMPFERIA pandurata*.

A native of Sumatra; introduced subsequently to the last edition of the Hortus Kewensis by Sir Abraham Hume. The drawing was made from a specimen which flowered this autumn, in the hothouse of Mr. Griffin, at South Lambeth. It may not be supererogatory to some readers, if we remark, that Ginger, Arrow-root, and Turmeric (the basis of Currie-powder), substances familiar to every one, are preparations of the tuberous root of different species belonging to the same natural tribe with the plant before them.

KÆMPFERIA, according to Dr. Roxburgh, differs from the closely kindred genus *HEDYCHUM* by a radical inflorescence and foliage; by a corolla in which the lip is not reversed, and a filament which terminates beyond the anther in two small lobes.

Rootstock of *pandurata* round-ovate, sending out straight fasciculately descending thick fleshy radicles beset with fibres. *Leaves* bifarious, petioled, from a foot and half to two feet high, upright; *petioles* channelled, sheathing, enclosed at the base by rootsheaths, and having a membranous *stipule* or *ochrea*, which crosses them within, near their middle, and is continued in a narrow border downwards along their sides: *blades* ovally lanceolate, loosely nerved, terminated by a somewhat sudden point, awned three or four inches broad, thinly sprinkled with deciduous down beneath, clouded over at the upper surface by a fine white efflorescence, scarcely perceptible but through a magnifier. *Spike* of closely imbricated *bractes*; flowers several, appearing one at a time. *Calyx* several times shorter than the tube, contracted and unequally cleft at the orifice. *Corolla* 2-3 inches high, pale flesh colour, with crimson veins; *tube* white, twice the length of the limb, slender, straightish, pubescent within; *limb* six-parted, nodding, campanulate; semiringent; *three exterior segments*, narrowest, oblong, 3-nerved, of one length; of these the middle one is the uppermost of the flower, lanceolate pointed and broader than the other two, which are linear

blunt and placed at the back of that termed the lip; *three inner ones* wider, two constitute the upper lateral segments of the limb, and are obovate and rather shorter than the rest, the other is the labellum or lip, and is much the thickest and largest of the whole, as well as more gaily coloured, broadly oblong, involutely concave, wrinkled, emarginate or notched, an inch long or more, bearded at the base within. *Filament* shorter than the double *anther*, substantial, bulky, white, compressed, channelled. *Style* capillary: *stigma* just above the anther, funnel-form, compressed, pale. The flesh of the root is yellow, and the flavour is compared by Rheede to that of Ginger and Saffron combined.

a A flower expanded more than naturally, to show the form of the segments. *b* Upper portion of the filament, with the anther and the two lobes that extend beyond it.



Lyd & Howard del

Pub. by J. Ridgway & Co. 1817

Piccadilly. Feb. 1. 1817.

Smith sculp

PANCRATIUM canariense.

Canary Sea-daffodil, or Pancratiium.

HEXANDRIA MONOGYNIA.

Nat. ord. NARCISSI. Jussieu gen. 54. Div. II. Germen inferum.

AMARYLLIDÆ. Brown prod. 296. Sect. I. Radix bulbosa. Flores spathacei, umbellati, rarò solitarii.

PANCRATIUM. Suprà vol. 1. fol. 43.

Div. Stamina spatiis alternis dentium interjecta.

P. canariense, multiflorum; foliis bifariis lanceolato-loratis, glauciusculis, obtusulis, tubo bis brevior limbo, filamentis lacinulas coronæ 12-fidæ non exsuperantibus.

Bulbus globosus. Folia plura infrà cylindræo-vaginantia, indè erecto-patentia, loratè elongata, subinvoluta-canaliculata, deorsum subarctata, obtuso-acuminata, obsoletè nervosa, sesquipedalia vel altiora, maximum sesquinciam lata. Scapus lateralis, compressus, glaucus, parùm brevior foliis. Spatha lanceolata, cuspidata, superans pedunculos. Umbella 7-8-flora, erecta, alba, remissè odora, pedunculis angulosis florì penè æqualibus. Germ. parùm brevius tubo, lineari-oblongum, triquetrum, duplo crassius pedunculo; ovulis numerosis in loculamento singulo biseriatis. Cor. sesquincialis vel parùm altior; tubus virens, angustus, sexsulcus, triquetè; limbus stellatus, infrà brevè adnatus coronæ, laciniis angustè lanceolatis, longitudine duplâ limbi, extimis 3 latioribus: corona $\frac{1}{2}$ parte brevior limbo, turbinata, patula, inciso-dentata, dentibus 12 angulari-acuminatis æqualibus integerrimis. Stam. conniventia, brevissima: anth. luteæ, lunulatae, vibratae, æquales vel longiores filamentis. Stylus triquetro-filiformis, inclinatus, curvus, firmulus, æquans florem: stigma punctum obtusum parùm tumidum.

Considering the moderate extent of the Canary Islands, and the frequency with which they have been investigated by intelligent and industrious botanists from all quarters of Europe; we did not expect to find that they possessed a native liliaceous plant, so conspicuous as the present, which remained to be registered. But we can find no record of it within the chronicles of Botany; nor in any Herbarium to which we have access. The specimen that afforded the drawing, bloomed this autumn in the hothouse of Mr. Griffin, at Lambeth.

It is indigerous of the island distinguished in the cluster by the name of the Grand Canary; and was brought into this country in the winter of 1815 by Dr. C. Schmidt, a gentleman now associated to the expedition to the Niger.

It differs from the other species we are acquainted with, by the shortness of the tube and filaments, the last of which scarcely equal the dwarf lobules of the crown. And we did not find in the bloom the delightful fragrance of its congeners. It belongs to that division of the genus whose species have the filaments placed distinctly in the alternate intervals of the teeth of the crown, as opposed to that whose species have filaments which are not distinct in the intervals, but confluent with six of the teeth.

Leaves bifarious, several, cylindrically sheathed below, diverging from thence, lorately elongated, sublanceolate, glaucous, obtusely acuminate, slightly involuted, obscurely nerved, contracted downwards, at the broadest of the blade about an inch and half across, in height a foot and half or more. *Scape* outside the foliage, which it nearly equals, compressed, glaucous. *Spathe* lanceolate, cuspidate, longer than the peduncles. *Umbel* white, 7-8-flowered, upright, slightly scented; *peduncles* angular, nearly equal to the flower. *Germen* but little shorter than the tube of the corolla, oblong, linear, three-sided, about twice the thickness of the flower-stalk; rudiments of seeds numerous in each cell, in two rows. *Corolla* about an inch and half long, or rather more, *tube* green, slender, six-fluted, triangular, scarcely half the length of the limb; *limb* stellate, downwards adhering shortly to the crown, segments narrow-lanceolate, the three outermost broadest: *crown* one third shorter than the limb, inversely conical, spread at the mouth, and cut into twelve angular equal entire lobules or teeth. *Filaments* very short, in the intervals between the pairs of teeth, to which they are equal, connivent: *anthers* yellow, bent into crescents after parting with the pollen, balancing, as long as the filaments or longer. *Style* triangularly filiform, inclining, curved, substantial, length of the flower: *Stigma* an obtuse point, but little enlarged.



Spt. G. Edwards. del.

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CHELONE obliqua.

Purple Chelone.

DIDYNAMIA ANGIOSPERMIA.

Nat. ord. BIGNONIÆ. Jussieu gen. 137.

Div. I. Fructus capsularis bivalvis. Caulis herbaceus.

CHELONE. Suprà fol. 116.

C. obliqua, foliis petiolatis, ovato-lanceolatis inæqualitèr serratis oppositis lævibus; floribus densè spicatis: corollis purpureis. *Mænoch meth.* 442.

Chelone obliqua *Linn. syst. veg. ed.* 18. 463. *Hort. Kew.* 2. 330. *ed.* 2. 4. 7. *Willd. sp. pl.* 3. 225. *Schkuhr hand.* 2. 188. *t.* 172.

Chelone glabra β. *Linn. sp. pl.* 2. 849. *Michaux bor. amer.* 2. 24. *Pursh amer. sept.* 2. 427.

Chelone purpurea. *Mill. dict. ed.* 8. n. 2.

Chelone foliis ovato-lanceolatis serratis, floribus rubris. *Mill. ic. tab.* 93.

Chelone floribus speciosis pulcherrimis colore Rosæ damascenæ. *Clayt. n.* 274.

Digitalis Mariana serratis densioribus rigidis et angustis foliis, semine *Fagopyri*. *Pluk. mant.* 64. *t.* 348. *f.* 3.

Herba perennis radice repente. Caulis articulato-fistulosus, bipedalis, distantèr foliatus, modò axillis ramosus. Folia decussata, triuncialia, oblongo-lanceolata, acuminata, rachide utrinque parallelo-nervosa, nervis dentibusque conspersis pilis articulatis. Spicæ terminales, densatim multifloræ, decussato-tetrastichæ, bracteis herbaceis triplicibus ovato-acuminatis (mediâ majore) distinctæ. Cal. 5-partitus foliolis ellipticis concavis apice rotundatis. Cor. semiringens, roseo-purpurascens; tubus brevissimus, angustus; faux magna, oblonga, plano-convexa; limbus coarctatus, parvus; labio superiori inflexo obtuso emarginato, inferiori reflexo trifido intus barbato. Fil. fertilia, alba, compressa, pilosa; sterile quintum rubellum: anth. didymæ lanatæ. Stylus longitudine staminum: stig. obtusum. Caps. ovato-globosa, glabra, dissepimento duplicato ex inflexis valvularum marginibus formato; receptaculum oblongum fungosum, in axi capsulæ positum, cum dissepimento non conatum. Sem. numerosa, deorsum imbricata, membranaceo-marginata. Plurima Linnæo Gærtner et Mænoch suppeditata.

A well-known hardy perennial, flowering in the autumn; native of North America, where it is found at the sides of rivulets, on the high mountains of Virginia and Carolina. Sent to Miller by Mr. Clayton in 1752. It is found to grow freely with us, and is easily propagated by the creeping root; but thrives most in damp shady positions. Mr. Pursh is of opinion with some other botanists, that the plant is not specifically different from the white sort

(*glabra*); we have abided by the Hortus Kewensis, in which they are separated. The generic appellation was suggested to Tournefort by the figure of the corolla, which his fancy had assimilated to the shell of a tortoise (*χελωνη*) in miniature.

The species will soon, we suspect, be supplanted in our gardens by the *CHELONE Lyoni*; *Pursh amer. sept. 2. 737* [*major Curt. magaz. 1864*] a rival sister of new appearance and of very near resemblance, but of much larger stature throughout, a cordate-based ovate foliage, and a more resplendent flower.

In our plant the *stems* are jointed and fistular, about two feet high, distantly leaved, sometimes branching from the upper leaf-axils. *Leaves* opposite, decussated, about three inches in length, oblong-lanceolate, acuminate, ribbedly nerved with a prominent midrib or rachis, beset at the nerves and teeth by small articulated hairs. *Spikes* terminal, closely manyflowered, decussately tetrastichous or four rowed, with the flowers of two opposite rows crossing those of two intermediately opposed rows by alternate pairs; *bracies* herbaceous, in threes, ovate, pointed, middle one the largest. *Calyx* 5-parted, leaflets elliptic concave round-pointed. *Corolla* semiringent or oscitant by the under lip only, rose-purple: *tube* very short, narrow; *fauces* ample, oblong, plano-convex; *limb* contracted, small; *upper lip* inflectent obtuse notched at the end or emarginate; *lower* reflectent trifid bearded within. *Fertile filaments* 4, white, compressed, hairy: the *fifth* sterile red: *anthers* didymous or twinned, woolly. *Style* the length of the stamens: *stigma* obtuse. *Capsule* globular verging on ovate, smooth, with a double dissepiment or partition formed by the inflection of the margins of the valves; *receptacle* oblong spongy in the axis of the capsule; clear of the dissepiment: *seeds* numerous, imbricated downwards, with a membranous border.

The order of *Bignoniaceæ*, as limited by Mr. Brown, does not include the present genus; nor, indeed, any of the herbaceous genera comprehended in the *Bignonia* of Jussieu.

a The calyx. *b* Lower part of the corolla dissected, so as to show the four fertile stamens; and the fifth sterile filament. *c* The pistil.





Lpt. & de laude

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Smith. sc.

ASTRAGALUS caryocarpus.

Nut-podded Milk-Vetch.

DIADELPHIA DECANDRIA.

Nat. ord. LEGUMINOSÆ. Jussieu gen. 345.

Div. VI. Cor. irregularis papilionacea. Legum. 1-loc. (in Astragalo et Biserrulâ biloc.) 2-valv. Herbæ aut frutices aut arbusculæ; folia impari-pinnata.

ASTRAGALUS. Cal. 1-phyllus, cylindricus, 5-dentatus, 5-fidus, aut nunc 5-partitus, sæpius corollâ brevior. Vex. oblongum ovatum aut rotundum, sæpius emarginatum, nunc lateribus reflexis, alis longius aut nunc æquale. Alæ stipitatæ limbo oblongo, basi hinc auriculato. Car. obtusa, alis brevior aut subæqualis, basi bipes. Germ. sessile v. nunc stipitatum, formâ varium. Stylus a basi v. medio inflexus. Stig. simplex, subcapitatum. Legum. sessile rarè stipitatum, forinâ magnitudineque varium, biloc., semibiloc., v. vix semibiloc.; suture inferiore introflexâ; sem. reniformia, numero paria in quoque loculo. Decand. Astrag. 22.

Div. 1. Stipulis caulinis s. petiolo non adhærentibus. A. Corollis purpureis aut albo-roseis. α. Caulibus diffusis.

Λ. caryocarpus, sericeo-canus, multiceps caulibus subsimplicibus: foliolis (17-25) lanceolato-ellipticis brevè petiolatis subtis sericeis, pedunculis axillaribus spicâ duplo longioribus: leguminibus nuciformi-inflatis, rugosis.

Astragalus crassicaarpus. Fraser's catal. 1813; (à carnosus Pursh amer. sept. 2. suppl. 740, toto cælo distans).

Perennis. Caules herbacei, prostrato-assurgentes, spithamæi ad pedales, pilosi, viridi-purpurascens, undati. Folia alternè distantia, patentia, foliolis suboppositis, laxis, suprâ glabris, semuncialibus, triplo angustioribus quàm longa: stipulæ ovato-cuspidatæ, pilosæ. Pedunculi æquantès v. superantes folia; spicæ 8-14-floræ glomeratæ v. laxius extensæ; flores subsessiles, ½ partes unciæ longi v. circâ, oblongi, distincti bracteis sericeis lineari-lanceolatis non æquantibus calyces. Cal. duplo brevior corollâ, fusco-hirsutus, subcoloratus, lacinulis subulatis æqualibus. Cor. violaceo-pallescent: vex. longius alis, reflexum, ovato-oblongum, emarginatum: alæ oblongo-falcata: car. brevior alis, ventricosoinflexa, obtusa, emarginata ventre et apice intensè colorata, petalis 2 cohærentibus. Anth. aurantiacæ. Germ. polyspermum, glabrum, teres, virens, brevius stylo. Stylus albicans, subulato-teres: stig. simplex parum incrassatum glabrum obiusum. Legumen Juglandem aptè satis in parvo exhibens, mole fermè Nucis moschata, spongioso-cartilagineum, fuscum, glabrum, profundè rugatum, suturâ prominente divisum, mucronatum; biloculare dissepimento duplicato completo pergamineo: sem. plura in loculo utroque.

Astragalogia, or the history of the Milk-worts, has occupied two splendid folios; one with coloured engravings by the Chevalier Pallas, the other, the more recent, by Professor Decandolle, with uncoloured plates. But neither

volume comprises the present species, which was found in Upper Louisiana by Mr. Nuttall, by whom it has been lately introduced into this country. Mr. Pursh, who knew it only by the name we have cited from Fraser's Catalogue, had surmised it to be the same with the *carnosus* of the Supplement to his American Flora. But that is a very distinct plant with numerous spreading branches, terminal sessile spikes, and a lignescent or suffrutescent stem; as proved by the prototype specimen, found by Mr. Bradberry in another part of Louisiana, and now in Mr. Lambert's Herbarium. Gum Tragacanth is a secretion of more than one species in the Levant.

Our plant is perennial, tolerably hardy, herbaceous, and covered by a hoary nap. *Stems* several, first procumbent, then ascending, simple, with a waved appearance. *Leaves* alternate, patent, distant; *leaflets* mostly opposite, 17-25, or thereabouts, expanded, placed at open intervals, shortly petioled, smooth on the upper surface; with a closely pressed nap on the under; about half an inch long, and about three times narrower across, lanceolately elliptic, bluntish, with a small point, tapered towards the petioles. *Peduncles* axillary, twice as long as the spikes or longer, equalling or overtopping the leaves. *Racemes* (*spikes*) 8-14-flowered, glomerate, or sometimes extended and loose; *flowers* almost sessile, about $\frac{3}{4}$ of an inch long; *bractes* linear, subulate, pubescent, not equal to the calyx. *Calyx* about half the length of the corolla with a brown shaggy nap, purplish-green, with small pointed even teeth. *Corolla* pale violet-purple; *vexillum* rather longer than the wings, ovate, oblong, notched at top; *wings* falcate; *keel* shorter than the wings, inflectent, ventricose, obtuse, notched, of a deep bright colour. *Anthers* orange-yellow. *Germen* green, smooth, round, several-seeded, shorter than the white inflectent *style*; *stigma* slightly thickened, smooth, obtuse. *Pod*, when ripe, about the size of a nutmeg, not unlike a stunted walnut; *shell* bilocular, fungously cartilaginous, contracted into furrows, divided outwards by a prominent suture; inwards by a double entire *dissepiment* of the substance of parchment: *seeds* several in each cell.

The drawing was taken from a plant sent from Mr. A. B. Lambert's seat, Boyton, in Wiltshire.



Syl. Edwards del *Pub by J. Ridgway & Sons 170. Piccadilly Feb. 1. 1847.*

Smith. Sc.

SOLANUM fontanesianum.

Desfontaines's Nightshade.

PENTANDRIA MONOGYNIA.

Nat. ord. SOLANEE. Jussieu gen. 124. Div. II. Fructus baccatus.

SOLANEE. Brown prod. 443. Sect. I. Corolla limbo sæpiùs plicato. Stamina numero laciniarum. Embryo valdè curvatus. SOLANEE VERÆ. Brown loc. c.

SOLANUM. Suprà vol. 1. 71.

Div. Foliis pinnatifidis, bipinnatifidis pinnatisectisque. Corollis 5-fidis; baccis calyce aucto et aculeato tectis. Cryptocarpum.

Subdiv. Antheris inæqualibus.

S. *fontanesianum*, caule sublignoso annuo aculeato piloso, foliis profundè pinnatifidis, laciniis sinuatis, corollis subregularibus, antheris parvis, infimâ apice curvatâ subfuscâ. Dunal syn. 46. n. 286. ejusd. Solan. ed. 2. inedit. cum tab. Poiret suppl. encyc. de Lamarck. 3. 777.

Planta annua, vix sesquipedalis pilis stipitato-stellatis v. compendiatè pappiformibus cum simplicibus mixtis hirsutiùs pubescens, aculeis armata inæqualibus aliis validioribus acicularibus lutescentibus, aliis parvulis setaceis purpureo-nigricantibus. Caulis cavus, rigidus, aculeatissimus aculeis subreflexis, superne axillis ramosus. Folia pubem canum viridi-translucentia, subscarioso rigentia, 4-uncialia, ovato-oblonga, interruptè subbipinnatifida, crispata, petiolis nervisque utrinque aculeata, lobis interruptè profundèque divisus ipsisque sinuato-pinnatisectis, lobulis sursum dilatatis, rotundatis; petioli 3-plo breviores laminis. Racemi pauci-(4) flori, laterales, superni, foliis distantes, de revolutis erigendi, secundi, brevè pedunculati. Cal. urceolatus, 5-fidus, lanatus, echinatus, multum minor corollâ, segmentis utrinque pubescentibus, parcius tamen intus, oblongis, acutis, summâ majore, laterali-bus ejus 2 minoribus quàm duo infima; tubus fœtus germine, intus lævis, pari passu cum incluso fructu augescens in mensuram adultæ baccæ capacem. Cor. subirregularis, lutea, extus lanata, $\frac{3}{4}$ partes uncie ferme transversa, inermis; tubo brevi; limbo concavo-rotato, sinuato-quinquangulo, angulis brevè attenuatis. Stam. declinato-conniventia; fil. bis breviora antheris: anth. parvæ ratione congenèrum sectionis suæ, 4 æquales, imâ quinta cæteris proximè subjecta, longior, fuscescens, apice inflexa. Stylus æqualis stamini longo, declinato-assurgens, sub lente puberulus, compresso-subclavatus, proximè infra stigma brevè bilobum obiter constrictus.

In a former article of this work, we noticed the history of the *Solanums* or Nightshades, by Dr. Dunal, of Montpellier, which had then just reached us. A work in which more than 200 species were arranged with great perspicuity and discernment under one generic head. We have now received a Synopsis of the same vegetable family from the

same pen, augmented to 340 species, of which more than 320 are ranked under SOLANUM. And we cannot refrain from applauding the industry and ingenuity displayed in the internal organization of the group, in the view of obviating an idle subversion of a well-established genus, and the wanton incumbrance of new names.

We have no account of the indigenous abode of the present plant; which has been lately introduced by Mr. Anderson, the superintendant of the Garden of the Company of Apothecaries at Chelsea, and was received by him from some of the Parisian gardens. It belongs to the section of the genus comprising the species the calyx of which grows co-extensively with the enclosed germen, up to the complete maturity of the berry; and borders very closely on *cornutum* and *rostratum*, but differs from both, in being throughout of a much smaller size, and having the prickles of the stem deflectent; specially from the first in being annual, not perennial, by a stem with a roughish pile, not as in that smooth, and by smaller anthers; from the second by a compoundedly, not simply divided foliage; and in other points from each. Our plant was scarcely a foot and a half high, and covered with a pile of pedicled stellately pencilled hairs, intermixed at certain points with others of a simple structure; the whole beset with numerous unequal sized prickles. *Stem* rigid, hollow, branched at the axils of the upper leaves. *Leaves* somewhat harsh, shining green through the hoar of the pubescence, about four inches in length, ovately oblong, interruptedly subbipinnatifid, waved or curled at the edge, prickly at the petioles and along the nerves on both surfaces; *lobes* deeply parted and sinuately indented; *lobules* dilated and rounded at the end. *Racemes* short, few-flowered, lateral, and standing wide of the leaves. *Calyx* unequally echinated at the tube which keeps the fruit. *Corolla* yellow, nearly regular, about three parts of an inch in diameter, woolly on the outside, sinuately pentagonal, with short pointed corners. *Anthers* small for the section of the genus, the longer fifth subtended to the other 4, tinged with brown, inflectent at the summit. *Style* equal to the longest anther.

Requires the usual treatment of common tender annuals. The drawing was made in the autumn at the Chelsea garden.

a The corolla dissected, to show the tube and stamens. *b* The pistil.

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NOTES.

Solanum amazonium. Vol. 1. fol. 71.

The fruit of this plant being unknown to us, we had placed the species hypothetically in the subdivision of those having a calyx that grows co-extensively with the inclosed berry. But Dr. Dunal, in his recent Synopsis of the genus, has placed it under the following division;

“*Corollis subirregularibus, 5-fidis, laciniis acutis reflexis; antheris inæqualibus; baccis globosis calyce aucto non tectis.*”

He does not seem to have seen the fruit; but is likely to have formed a more correct judgment than ourselves.

Passiflora incarnata. Vol. 2. fol. 152.

We find that doubts have arisen, whether the plant of the above article is of the same species with the Carolina or virginian one, formerly much cultivated here in the open air; and which, if really distinct from this, we have not seen, except in a dried state. That our plant is of the same species with the one first introduced into Europe, and in so far the *incarnata* of Linnæus, is a fact, in our mind, proved beyond a cavil by the excellent cotemporary figures and descriptions, which we have cited in their place. We stated in that article, the differences which then suggested themselves to us as distinguishing the one plant from the other; but perceiving none such as we thought could be relied on for safe or valid specific discrimination, we recorded them as mutual varieties or subspecies, leaving it to the taste of others to divide or not in a different way. In doing so, we were actuated by the desire of avoiding an incantious increase of the idle nuisance of controvertible and iterated species. And in this state we shall leave the decision of the point to those who have ampler means of judging, or are more competent.

The following notice regarding our plant is due to the kindness of Mr. Boehm, from whose seat at Ottershaw, that figured in this work was originally procured for Lord Tankerville's collection. It goes to prove it a native of the Brazils; and thus furnishes a better ground for a belief in its specific difference than any we are aware of; although we have yet to learn that it has been ruled by nature that Carolina and the Brazils shall not produce plants of a species common to both countries.

Mr. Boehm's gardener informs him, that the plant was introduced from Portugal, where it is much cultivated, in 1808; that it is supposed to be native of the Brazils: that it flowers here from May to August: that the fruit is in perfection from August to November: that the best soil for it, is a light loam, mixed with black mould; and the most appropriate place of growth, a conservatory, where it can have plenty of air; for if this is not admitted freely, the fruit will not set.

Dr. Barton, an american botanist of eminence, who has given a figure of the Carolina or virginian plant in his Elements of Botany, tells us that it is known by the name of the May-Apple in the United States; and Clayton says that some people eat it. We may add to the differences we have previously noticed, that the involucre of the north american plant is smaller than the one we now see in our hothouses; but then the whole out-of-doors plant is smaller.

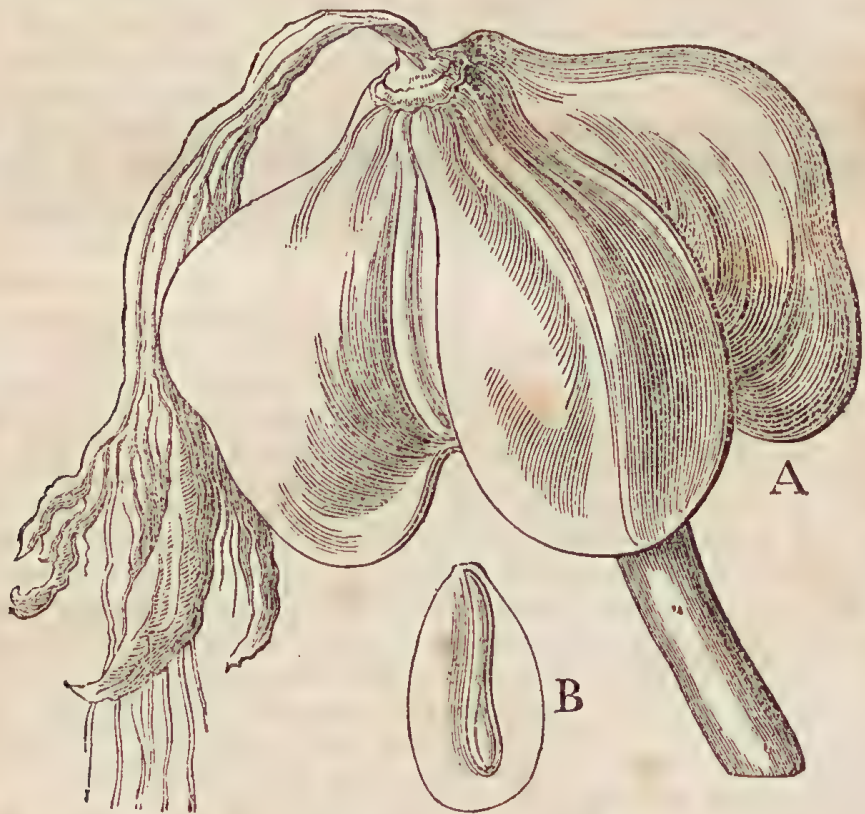
NOTES.

Ixora grandiflora. *Suprà* vol. 2. 154.

Sir William Jones, in a treatise on indian plants, in the fourth volume of the Asiatic Researches, informs us that *Ischwara* is one of the names of the Deity Siva; but that there is no indian god known by the appellation of *Ixora*. The latter is probably an orthography adopted, by the Dutch Editor of the Hortus Malabaricus, from the ear. And as convenience of articulation is of more importance than conformity to derivation in a technical generic name, we do not regret that the Dutchman was thus much less learned than the english critic; supposing always that Linnæus would have taken up the other for the title of the genus.

Amaryllis calyptrata. *Suprà* fol. 164.

Since the above article was printed, the same plant has produced a third flower-stem. The inflorescence of this agreed in every point with that of the two preceding, but the segments of the corolla were conspicuously marked in the disk with numerous tile-red dots, generally confluent along the nerves; the stamens were not mottled, but of a pale uniform dull-red colour. We have annexed a cut of the Capsule (A), which has ripened since; and an outline of a detached seed (B).



Addenda descriptioni priori.

Laciniaë limbi disco lateritio-punctatæ, punctis sæpè lineato-confluentibus. Caps. oblato-ovata, triventri-triloba, suprà brevè arcata, lobis pulvinatis, supernè gibbosis, ventre tumido deorsùm promisso. Sem. foliaceo-compressa, numerosa (200 v. ultrà) ordine duplici deorsùm obliquata, margine inferiore sibi invicem incumbentia, elliptico-oblonga,

NOTES.

uncialia, fumosa, membranâ amplissimâ subdiaphanâ alata; albumen verticale, castaneo-carnosum, album, angustè obovatum, infernè versùs attenuatum, compressum, retentum funiculis interaneis duobus, quorum unus rectè ab umbilico ductus, alter propè apicem enatus reflectitur secundùm latus; hinc lineæ 2 opacæ parallelæ quibus alam insigniri videmus.

The capsule of this species differs from that of all others known to us in the genus, by the considerable deflexure of the lower protuberance of each of the three lobes. The seeds also differ; they slant downwards, and the inner margins of the two series in each loculament lap alternately one over the other; they are of the colour of smoked glass; and the flat downwards tapered nucleus is placed near the upper extremity of the margin. In the other species of the genus with flat seed, the two piles or rows are separated as if they had been one cut through by a knife, the integument is black, and the nucleus is placed near the base of the margin. Mr. Griffin took more than 200 seeds from the present capsule.

ERRATA.

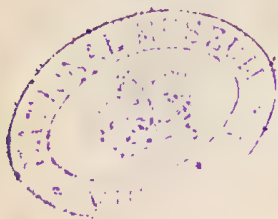
VOL. I.

- Fol. 6. l. 21; pro "*villosutis*" lege "*villosulis*."
 Fol. 63. l. 8; pro "*calyce*" lege "*corollâ*."
 Fol. 90. l. 4 a calce pag. pro "*Willd. in cit. 55. Mag.*" l. "*Willd. in cit. Mag. 55.*"
 Fol. 90. overleaf, l. 20; for "*monadelphous*" read "*monopetalous*."
 In Indice latino; pro "*Patersônia glabra*" l. "*Patersônia glabrata*."

VOL. II.

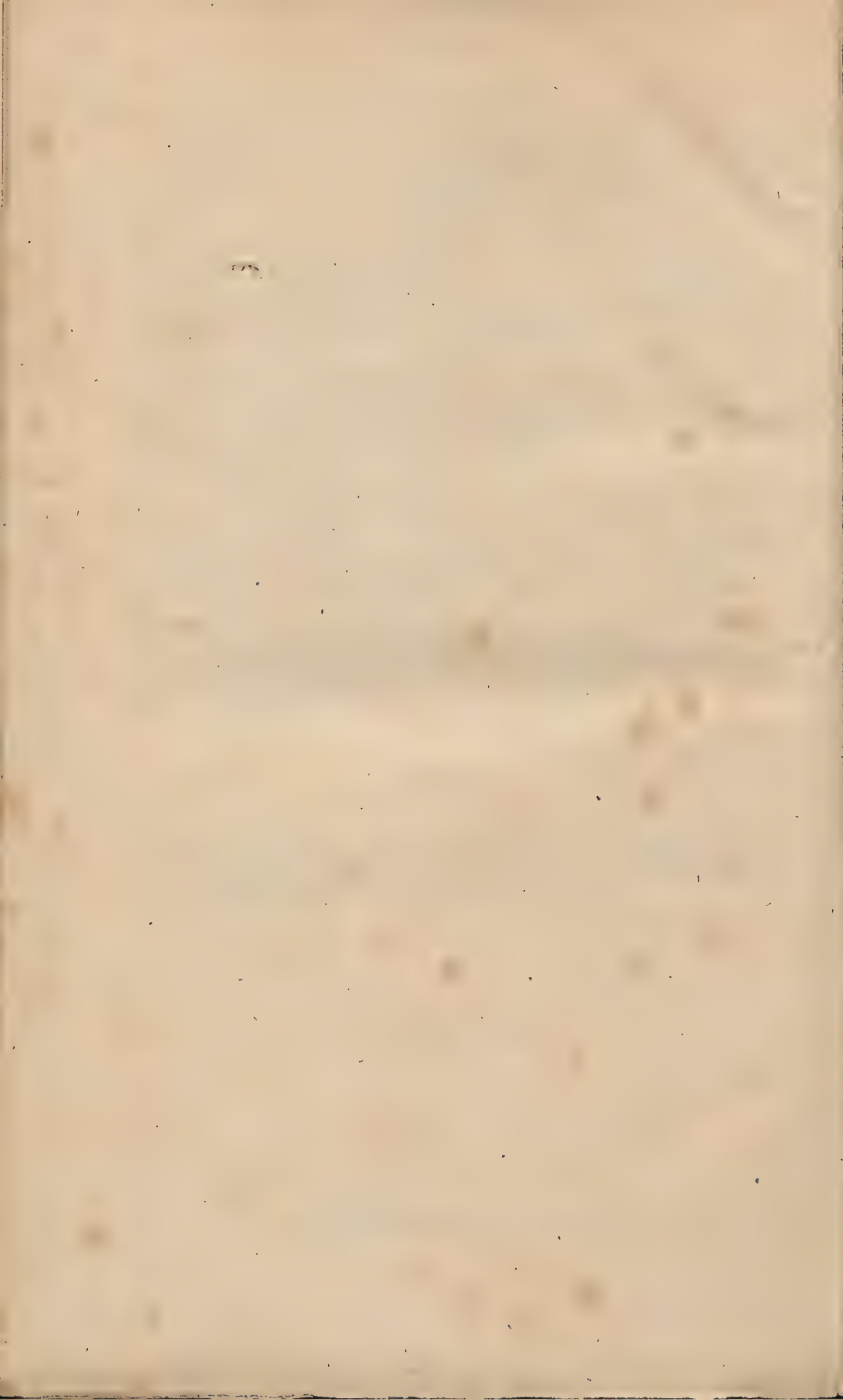
- Fol. 99, last line; for "*notices its having*" read "*notices it as having*."
 Fol. 106, l. 3 from bottom; expunge "*now*."
 Fol. 100, over leaf, l. 8 from bottom; for "*subulate*" read "*subulate*."
 Fol. 110, l. 7 from bottom; for "*stem clasping*" read "*stemclasping*."
 Fol. 123, l. 16 a calce; pro "*Barrel. 67*" l. "*Barrel. ic. 67*."
 Fol. 125, l. 25; pro "*cataractus*" l. "*cataractas*."
 Fol. 125, l. 9 from bottom; for "*thyrze*" read "*thyrsæ*."
 Fol. 126, l. 16 a calce pag. pro "*labii supremi (floris resupinatione infimi)*" lege "*labii infimi (floris resupinatione supremi)*."
 Fol. 126, l. 14 a calce pag. pro "*infimi (supremi ab inverso flore)*" lege "*supremi (ob inversum florem infimi)*."
 Fol. 126, over leaf, l. 19 from bottom; for "*upper lip (by the inversion of the flower become the lower)*" read "*lower lip (by the inversion of the flower become the upper)*."
 Fol. 126, over leaf, l. 17, 16 from bottom; for "*lower (by inversion the upper)*" read "*upper (by inversion the lower)*."
 Fol. 127, l. 78, from bottom; for "*from a collection of seeds, &c. &c.*" read "*from seeds collected at Port Desire (a harbour on the eastern coast of Patagonia, frequented by vessels on their voyage to the Pacific Ocean,) by the surgeon of a merchant-ship.*"
 Fol. 134, l. 8 from bottom; for "*for mere titles*" read "*for a mere title*."
 Fol. 152, vers. l. 11; pro "*calycem æquantibus*" lege "*calycem æquantæ*."
 Fol. 170, over leaf, l. 16 from bottom; for "*externally, villous connivent*" read "*externally villous, connivent*."

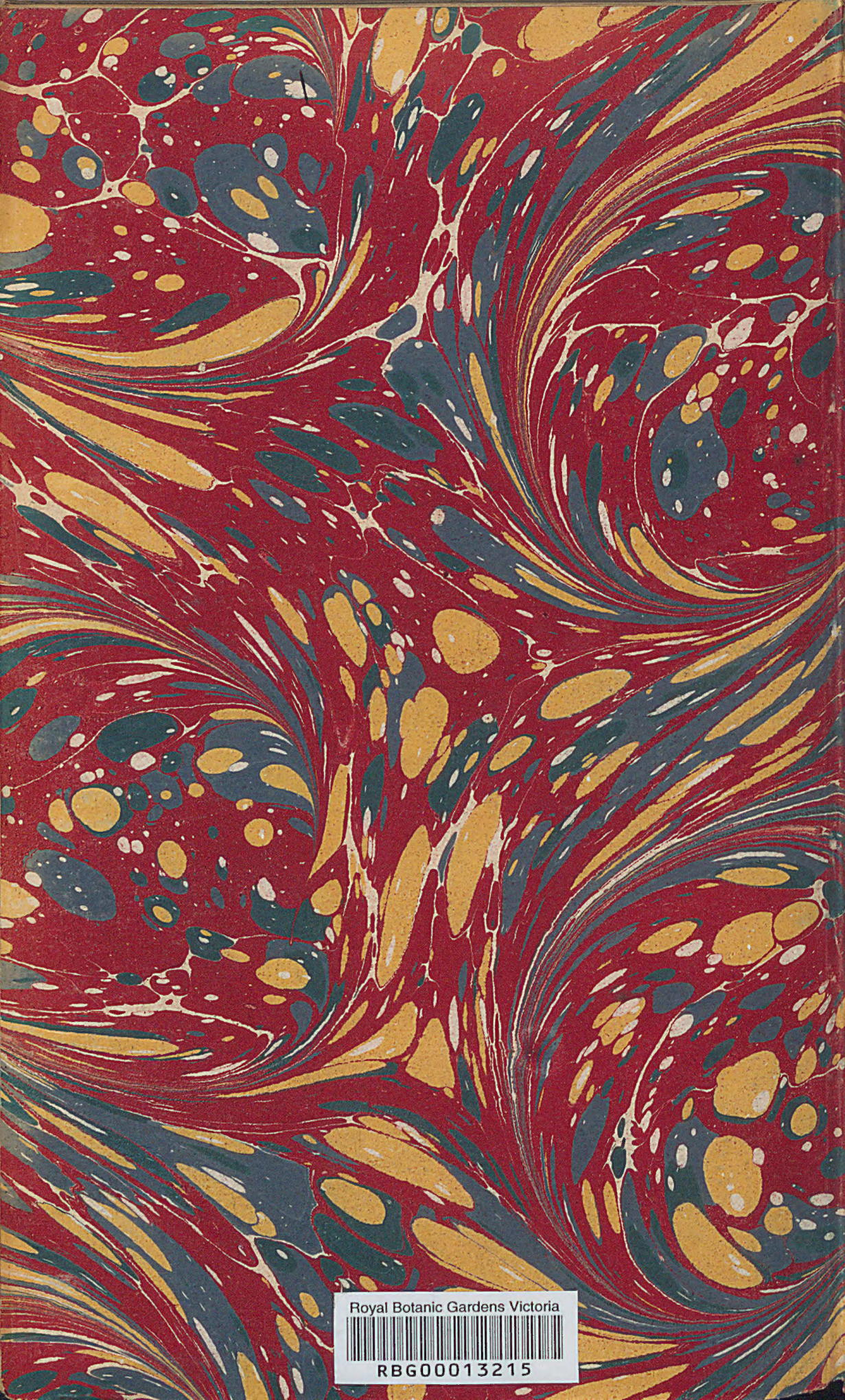
N.B.—The Bookbinder will observe that the plate of *CONVOLVULUS suffruticosus* has been engraved by mistake with the number 132 instead of 133; and that of *LILIUM pumilum* with 133 instead of 132.



THE END OF VOL. II.







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